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EDITORIAL NOTE

COMBAT PSYCHIATRY

**Experiences in the North African and Mediterranean
Theaters of Operation, American Ground Forces
World War II**

Prepared and published under the direction of

**Colonel Arnold L. Ahnfeldt
Medical Corps, United States Army**

Compiled and edited

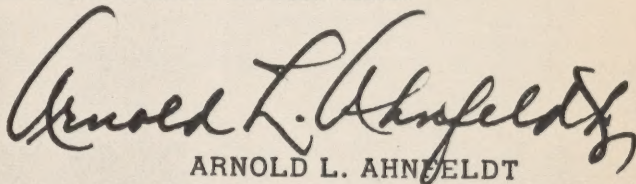
by

**Colonel Frederick R. Hanson
Medical Corps, Army of the United States**

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EDITORIAL NOTE

In the interest of providing in timely fashion the experience of former field medical officers confronted with psychiatric problems under combat conditions, this excellent monograph on "Combat Psychiatry," prepared as part of the history of the Medical Department, U.S. Army in World War II and being incorporated in Volume II, "Neuropsychiatry in World War II" now reaching completion, has been reproduced on behalf of The Surgeon General, Lieutenant General Leonard D. Heaton, to send immediately to Vietnam for the benefit of our psychiatrists and other medical officers there.



ARNOLD L. AHNFELDT
Colonel, Medical Corps
Director and Editor-in-Chief
The Historical Unit
U.S. Army Medical Service

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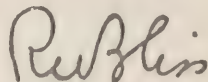
From the Historical Division, Office of the Surgeon General. This manuscript was prepared as part of the history of the Medical Department, U. S. Army, in World War II

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FOREWORD

Experience in two world wars has made it abundantly clear that psychiatric disabilities constitute a major problem in a modern army. These problems become intensified during times of emergency and in combat. Psychiatric disabilities lead to huge losses in effective manpower, but even more important than this is the fact that the rate of psychiatric disorders in any specific unit reflects the state of morale and efficiency of that unit. It is, therefore, of the utmost concern not only to the medical officer, but to the line officer as well, that every effort be made to prevent the occurrence of these disabilities. Of prime importance in prevention is a thorough understanding of the causes, symptoms, and methods of treatment of combat casualties. This excellent symposium, prepared by Colonel Hanson and his associates, based on the experiences obtained and the methods used in the North African and Mediterranean Theaters of Operation, is herewith presented for study and reference by all Medical Department officers.



MAJOR GENERAL,
THE SURGEON GENERAL.

INTRODUCTION

During the 5½ years of World War II there was little published information about the earlier stages of combat neuroses, though there was no lack of articles describing these disorders, weeks, and even months, after their initial appearance. Since the maximum benefit from therapy is to be expected in the early stages, a real need existed for accurate and detailed descriptions, not only of the initial reactions of the patient, but also of the circumstances associated with the development and early treatment of these disorders.

Ideally the contrast between the earlier and later stages would be demonstrated by following a single patient from his first appearance in combat, through the development of his neurotic reaction, and then through the psychiatric treatment given him in various echelons from battalion aid station to base section psychiatric hospital. In practice, it was necessary instead to describe typical reactions as they appeared in men treated in the several echelons. In the course of this account it was possible as well to describe the integrated functions of the psychiatric services of a field army during combat.

This symposium was undertaken in February 1943. Psychiatrists with extensive experience in the treatment of psychiatric patients under combat conditions were asked to write on the subjects most familiar to them. Many had worked at several echelons and were thoroughly cognizant of their interdependent problems. Moreover, all these officers knew one another and had had frequent opportunities to discuss their basic principles and opinions. The unity and personal acquaintance of the group proved important, for they made possible a general agreement on all major points and an integration of ideology difficult to obtain in a symposium on a controversial subject. The approach is descriptive rather than explanatory—though the two are in many instances inextricably mixed—for the purpose was to produce a symposium, unobscured by argumentative theory, which would be useful to the nonpsychiatrically trained medical officer called on to treat combat disorders.

The opinions and case material presented were derived from 2½ years of continuous, active combat experience in the Mediterranean Theater of Operations, and reflect the knowledge gained in the campaigns of Tunisia, Sicily, Italy, and southern France. Thus the fighting embraced nearly every type of terrain, weather, operation, and

combat condition, with the exception of the jungle and the Arctic. It seems probable, therefore, that the material is applicable to most of the commonly encountered combat conditions of land and amphibious warfare. As to its applicability in jungle and Arctic conditions, only psychiatrists who have worked under such conditions are competent to decide. No attempt has been made to describe the problems peculiar to the Air Force, since Air Force casualties seldom came under our care.

In any discussion of the neuroses of combat the framework of reference for all abnormal symptomatology and reactions is the symptomatology and reactions of the normal person in combat. To discuss combat neuroses in terms of civil life is to invalidate the inquiry. In civil life, for example, insomnia, recurrent nightmares, tremulousness, and urinary frequency would usually be regarded as indications of pathology. In combat they may be simple manifestations of normal anxiety. The medical officer familiar with the reactions of the ordinary soldier under combat disregards many manifestations that would be considered abnormal in the civilian. The first article of the symposium is devoted to the normal reactions of combat, in order that this altered frame of reference may be understood.

The importance of environmental factors in producing the neuroses of combat warrants equal consideration. It may be tautologic to state that the neuroses of combat arise as a result of combat. Nevertheless, this simple fact is often overlooked. An unstable personality may be a predisposing factor in the development of a combat neurosis, but indubitably a man whose emotional stability is normal, or even superior, before entering combat, may become a psychiatric casualty, usually as the result of a series of cataclysmic events or prolonged exposure to the dangers of battle. In short, even the most normal of soldiers may be brought to neurotic decompensation by war. Associated with the powerful emotional stimuli of danger are other, and at times oppositely directed, factors of an environmental type, such as physical fatigue, unfavorable terrain and weather, and such social factors as leadership, unit morale, and beliefs. The neuroses of combat cannot be understood unless proper weight is given to environmental factors.

A major feature of war neuroses is the remarkable plasticity and variability of the neurotic reaction, particularly in its early stages, when it may be properly considered amorphous and unfixed. With the passage of time the process tends to become stabilized and fixed. The unfixed nature of the neurosis in its early stages makes possible the successful treatment of the majority of combat-precipitated neuroses. Owing to the variability in speed and type of progression of

the symptoms, an account of the process at any single echelon of observation describes, not combat neuroses in toto, but only a single cross section of the dynamic process. This fact is often overlooked, and the literature is consequently replete with "cross-sectional" observations that purport to be descriptions of the total process of combat neurosis. The present symposium, by describing this process at all levels of observation and treatment within an active theater of operations, purposes to present an understandable and more nearly complete study of the neuroses of combat.

In the treatment of psychiatric disorders in this theater we followed the concept of not seeking perfection for the patient. That is, discomfort was not regarded as synonymous with disability, and the soldier who retained minor but unprogressive complaints and symptoms was compelled to perform his duties. Most psychiatric and psychosomatic patients cannot be made symptom free under combat conditions, but it is quite possible to return the greater number of them to effective combat duty under this principle of limited disability. In civil life the therapeutic value of making reasonable demands on the neurotic patient has long been recognized. This practice has not produced a severe exacerbation of the neurotic process in any significant number of soldiers.

Although most of this material was written in the field, without access to the literature, and it was thus impossible to give credit in the usual manner to the various authors who have contributed to the subject, references to a number of related works have now been added. The symposium is organized into two main sections, of which the first describes the appearance and treatment of soldiers at the various echelons of psychiatric treatment, and the second presents a series of special topics of major interest in the field of combat psychiatry. A third section presents statistical data, the present combat treatment plan, and references.

F. R. HANSON

SECTION I
PSYCHIATRIC TREATMENT AT VARIOUS
ECHELONS



The Normal Battle Reaction: Its Relation to the Pathologic Battle Reaction

LIEUTENANT COLONEL STEPHEN W. RANSON¹

Medical Corps, United States Army

Despite the unpleasant nature of many reactions to combat, soldiers whose responses are within normal limits must be subjected to normal military demands. Only thus can morale and discipline be maintained and unjustifiable leakage of combat manpower through medical channels be prevented. When this principle is violated by the psychiatrist the combat soldier's complaint is reasonable: "Why did you send that man to the rear? If he is psychoneurotic, so am I, and so is everybody who has been up here any length of time." An understanding of the normal battle reaction is as important to the Army psychiatrist as knowledge of normal physiology is to the internist. The pathologic battle reaction can be understood only in terms of the normal battle reaction. The psychiatrist inexperienced in evaluating combat reactions is likely to judge manifestations of fear and anxiety by civilian standards, in relation to which the combat normal is distinctly pathologic.

The trite saying "everybody is afraid in combat" is unilluminating. The untried soldier has never experienced repeated fear-producing stimuli of such intensity as those he will endure in combat, superimposed on fatigue of extreme grade and duration. Both he and the inexperienced medical officer whom he may ask to review his case are often quite unprepared to recognize his symptoms as lying within the range of the normal reaction to combat fear and fatigue. The normal battle reaction is made up of a variable set of symptoms that arise from (1) moderate to extreme physical fatigue; and (2) extreme, repeated, and continued battle fear, with (a) marked psychosomatic symptoms resulting from this fear and (b) certain psychologic symptoms resulting therefrom. Not all soldiers experience these symptoms to any important degree. Within a group of average or normal soldiers many have some of the symptoms described in the following discussion, a few have many of them, and some have few or none.

¹Formerly psychiatrist, Fifth Army Psychiatric Center (601st Medical Clearing Co.); chief, Seventh Army Psychiatric Center (616th Medical Clearing Co.); and currently, assistant chief, Neuropsychiatry Consultants Division, S. G. O.

NORMAL PSYCHOSOMATIC RESPONSE PATTERNS TO COMBAT STRESS

Combat stress and the fear resulting from it may produce certain psychosomatic responses, most of which can be included in the category of overresponse of the autonomic nervous system. These responses are here described and discussed on the symptomatic level, with little discussion of the well-known physiologic mechanisms.

Muscular tension normally increases under combat stress. From this elevated base line it is exaggerated momentarily by the impact of more acute combat stresses. Statements that "I tighten up" or "I can't relax up there" indicate entirely normal combat responses. Tension headache of moderate degree results in some normal soldiers from increased muscle tension. It is typically described as a sensation of pulling or pressure over the cranial vertex and the back of the head and neck. "Freezing," a soldier's term denoting temporary immobilization while subjected to heightened combat stress, is a normal reaction if extremely transitory. It is abnormal if more than transitory, if inappropriately induced, or if it prevents the soldier from accomplishing movements necessary to his own safety or that of others.

Shaking and tremor accompany the greatly heightened muscle tension under the impact of special stress. They occur not infrequently in normal soldiers subjected to close shelling or bombing, particularly after they have been sensitized to combat stimuli, and disappear rather rapidly after cessation of the stimulus. Tremor may be more persistent. It is common at all times under combat conditions in the normal soldier who has endured combat for 4 months or more. These transient reactions are most likely to develop when the soldier is forced to remain passive and "take it"; for example, while taking cover in his fox hole during a shelling. They must not be evaluated as symptoms of pathologic battle reaction. The abnormal shaking response is grosser, more incapacitating, and tends to last for hours after the immediate combat stimulus has ceased. The soldier is, therefore, not necessarily describing an abnormal reaction when he says: "The sound of those shells gets me. Every time I hear them I get shaky. When they're shelling my rifle shakes in my hands."

Excessive perspiration is a not uncommon psychosomatic response to combat stress. "Sweating it out," the soldier's apt term, has its source in this phenomenon. Beads of sweat may stand out on the soldier's hands. The axillas may be drenched. Some soldiers may feel chilly under combat stress, while others feel too warm. Sometimes these sensations alternate. Soldiers may mistake these sensations for the chill and fever of a febrile illness.

Under stress of battle some soldiers experience anorexia or nausea. Neither is sufficient indication for removing a soldier from combat.

Vague abdominal distress and mild diarrhea are frequent under these conditions. Vomiting is rarely normal, except when provoked by certain odors, particularly of the dead. Urinary frequency is one of the most common normal responses to combat stress. It is often accompanied by urgency and nocturia. Under the impact of catastrophic combat stress, incontinence of urine or feces is not abnormal. In the veteran, urinary frequency often continues beyond periods of actual contact with combat stimuli, and in that setting is not abnormal. Repeated incontinence or repeated episodes of enuresis in a soldier not previously thus afflicted lie beyond the normal range of response.

Tachycardia is a frequent battle response. Under battle stress soldiers are sometimes conscious of the action of their hearts. Tachycardia and palpitation alone do not justify removing the soldier from combat. Breathlessness, a sense of thoracic oppression, and sensations of faintness and giddiness may occur in moments of extreme stress. Giddiness can easily be distinguished from true vertigo. A history of one or two episodes of syncope under extreme stress, while not a common response, does not lie sufficiently beyond normal limits to justify evacuation. When generalized muscular weakness and lassitude caused by extreme physical fatigue are added to the symptoms already described, a transitory picture resembling neurocirculatory asthenia may develop. The physical demands made on a normal combat soldier may eventually produce not only some weakness and lassitude, but also numerous aches and pains. These symptoms are valid indications for an appropriate amount of rest, but not for a diagnosis of physical or psychiatric abnormality.

The best descriptions of the normal combat reaction, more vivid than those available from psychiatric sources, have been written by authors who have accompanied the Infantry in combat. Ernie Pyle wrote:²

"A narrow path comes like a ribbon over a hill miles away. . . . Along the length of this ribbon there is now a thin line of men. For four days and nights they have fought hard, eaten little, washed none, and slept hardly at all. Their nights have been violent with attack, fright, butchery, and their days sleepless and miserable with the crash of artillery. The men are walking. . . . Their walk is slow, for they are dead weary, as you can tell even when looking at them from behind. Every line and sag of their bodies speaks their inhuman exhaustion. On their shoulders and backs they carry heavy steel tripods, machine-gun barrels, leaden boxes of ammunition. Their feet seem to sink into the ground from the overload they are bearing. They don't slouch. It is the terrible deliberation of each step that

² From "Here is Your War," pp. 247-248. New York: Henry Holt and Co., publishers.

spells out their appalling tiredness. Their faces are black and unshaven. They are young men, but the grime and whiskers and exhaustion make them look middle-aged. In their eyes as they pass is not hatred, not excitement, not despair, not the tonic of their victory—there is just the simple expression of being here as though they had been here doing this forever, and nothing else.”

Management of psychosomatic complaints in the forward area. A soldier presents himself to his battalion surgeon with the following complaints: “I can’t stand them shells. My stomach hurts. They tear my stomach to pieces.” If unaccompanied by more ominous symptoms or by physical findings, these complaints merely describe in emotional phraseology one of the normal psychosomatic reaction patterns to battle stress. The soldier is saying in effect that he feels he cannot subject himself further to this reaction. Management consists in pointing out to the soldier that these sensations represent a normal response to combat, not differing greatly from that experienced by men who have remained in the lines. The physiologic mechanisms may perhaps be explained in simple terms. Then the soldier must return to duty, either immediately or after a few hours of rest at the aid station. Neither he nor the physician should expect that he will be relieved of the symptoms, since they are merely the normal autonomic response to fear in this soldier. It is as irrational to expect psychotherapy to relieve or remove such symptoms as to expect it to prevent dampness and chilling during combat in inclement weather. The soldier must “learn to live with it.”

If, however, the soldier is hospitalized as a result of these symptoms and receives a thorough diagnostic work-up, this originally nonpurposive symptom pattern becomes associated with a “gain”—that is, the soldier is removed from combat. The symptoms will continue beyond the period of battle stress to perpetuate that gain and will be reinforced by the mechanisms of self-justification and compensation for guilt feelings. The symptom pattern then becomes an abnormal reaction, not consistent with the meaning of present stimuli, and hence neurotic. Thus a neurosis is elaborated and crystallized.

When the soldier is returned to duty immediately, the symptoms continue as nonpurposive somatic expressions of anxiety, but they remain reasonably consistent with the situation and tend to disappear when the stimulus ceases, and no neurosis develops. Here, in a nutshell, is the basis of the successful management of psychosomatic complaints in the forward areas, and the reason for the hopeless picture of the psychosomatic combat reaction when it has crystallized at the general hospital.

SPECIAL PSYCHOLOGIC CONSIDERATIONS IN THE NORMAL
COMBAT REACTION

Anticipatory anxiety; combat sensitization of normal type. Before entering a dangerous situation the normal soldier experiences anticipatory uneasiness, varying in intensity according to his previous experience or lack of it. The average untested soldier enters combat with an intellectual appreciation of the dangers he will face, but the situation has little emotional immediacy. After he has experienced battle this pattern changes. Thereafter his anticipatory uneasiness increases, and succeeding entries into battle will cause him to feel greater apprehension. Such a statement is only superficially at variance with accepted theories about the superiority of troops trained and tested in battle. The battle-tested soldier is better trained because he is battle trained. He knows how to perform his duties efficiently and to take proper precautions. He can and does act rapidly and adaptively when the battle situation develops. In short, he is superior to the untried soldier in combat. Nevertheless, it is normal for him to become progressively more apprehensive before entering combat and to calculate and verbalize the odds on survival through serial battle experiences, as he sees comrade after comrade killed in action. The psychiatrist should regard his expressions of anxiety as normal and must not overevaluate them. "Once I was able to look forward to battle calmly," the soldier may say in effect. "Now I feel very jittery at the thought of going into an attack." Such a soldier shows only the normal sensitization to combat.

The meaning of combat stimuli; noise sensitivity; the principle of specificity of stimulus; the principle of abnormal continuance of specific reaction; sleep difficulties. After close bombing or shelling the soldier becomes sensitized to combat noises, especially if his group has suffered casualties. Certain noises will then evoke an on-guard reaction. The soldier will analyze the threat presented with a view to taking protective measures. In conjunction with these on-guard reactions and investigative responses the normal combat-sensitized soldier may experience such psychosomatic responses as sweating and palpitation. In this sense only, every normal soldier becomes "noise sensitive." Such a constellation of reactions, frequently described by soldiers questioned about noise sensitivity, must not be evaluated as abnormal. True abnormal noise sensitivity involves the factor of nonspecificity of stimulus or an abnormal increase in the response pattern, or both. Nonspecificity of stimulus implies a reaction to a noise that obviously does not represent a threat. Abnormal increase in the response pattern involves responding to meaningful and threatening combat noises, but with gross startle and other psychosomatic

overreactions. Or the soldier may both react to noises that carry no threat and show an abnormal increase in the response pattern.

A noise stimulus may be nonspecific for any one of several reasons. It may be one that the normal soldier of similar combat experience could be expected to distinguish from that made by an enemy weapon or missile—for example, the noise made by kicking over a tin can. It may be nonspecific because a normal soldier would readily recognize it as nonthreatening because of its distance or direction—for example, the sound of shells passing into the distance, overhead, or to one side, or the sound of friendly guns or shells. It may be nonspecific if it is obviously not threatening because of the place and time. Thus in a rear or base area any noise of close gunfire must obviously be that of friendly artillery, mortar, or small-arms practice; or in a base so far removed from the enemy that hostile air action is out of the question, or by day, when friendly air coverage is complete, the sound of airplanes represents no threat. Finally, the stimulus may be nonspecific by virtue of a combination of these factors—for example, the noise caused by kicking over a tin can in a base area.

Sleep difficulties may represent an entirely normal reaction to combat under certain circumstances. They result from tension, the need to remain alert, lack of comfort, and the presence of combat noises that interrupt sleep and call forth in the normal, combat-sensitized soldier an on-guard reaction. Under such conditions a history of some insomnia does not indicate an abnormal combat reaction or justify medical removal from the combat area, although a period of rest may certainly be indicated. To the normal soldier combat noises are more meaningful at night than by day and more provocative of the on-guard reaction. This normal pattern shades over into the abnormal, when the night becomes terrifying in itself, without other stimuli. Abnormal insomnia entails abnormal continuance or nonspecificity of stimulus. Thus, continued insomnia after return to a quiet area is abnormal.

Some diminution in drive, flow of speech, initiative, readiness to undertake new tasks or problems, range of interests, and feeling of well-being is a frequent, even usual, response to combat stress. A soldier will say that in combat he "just doesn't feel well," that he "isn't up to doing things he would usually do," that he "can't get interested in anything except his personal safety," that he has mild difficulty in concentrating and that he finds it difficult to write letters. Such complaints must be of considerable magnitude—that is, constitute true apathy or depression—or involve the principle of abnormal continuance by continuing well beyond the period of battle stress, before they pass out of the range of normal response. A certain mild

depression and a lack of humor and spontaneity are characteristic of many veteran troops.

Irritability is a normal characteristic in the soldier subjected to long-continued battle. Resentment arises normally in many soldiers who have lost close friends and withstood privations and dangers. It tends to increase with anxiety and is potentiated by any evident lack of equality in sacrifices made by combat soldiers as compared with rear-echelon military personnel and those on the home front. The healthy and socially desirable direction of the major part of this resentment is toward the enemy but when any real or fancied justification exists for the impression that there is shirking or discrimination against the combat soldier in the rear echelons, base areas, or home front, resentment is strong. There is much truth in the old dictum that "the infantryman always gripes," but it is important to give these "gripes" a socially desirable direction. Sociability and dependence on the presence and group action of others are heightened in combat. Men prefer to share fox holes and beds with their comrades, and many tend to develop feelings of insecurity when unsupported by the presence of others. Comradeship develops as a normal feature of combat life. Artificial barriers drop in response to the soldier's need to attain the security and solace of companionship.

Postcombat behavior. Immediately after relief from combat various temporary patterns of behavior are seen. If the action has been of long duration the most striking element of the picture is overwhelming physical fatigue combined with apathy and subnormal reactivity to stimuli. As a variant picture, there may be irritability or, occasionally, moderate euphoria and psychomotor overaction with laughing and pressure of speech. Some soldiers pace about restlessly; others sit and stare blankly. Eventually the tension under which the soldier has operated, and which continues to assert itself, may make a "letdown" seem essential. Thus arise the common reactive alcoholic, sexual, and social excesses of the soldier relieved from combat.

FEAR AND PANIC

Normal combat fear may be broken down into three manifest components: (1) fear of death, pain, injury, or mutilation; (2) fear of gross incapacitation by fear reactions, with resulting inability to guard one's self or discharge duties adequately; and (3) fear of exhibiting fear and thus losing caste with the combat group. The first component is obvious, but the force of the last two components in the normal soldier is not always appreciated. Thus it is not necessarily abnormal if a soldier fears that he may "blow his top," lose composure, be incapacitated by fear, or become a burden to

others because of his fear reactions. It is not abnormal for the new soldier to feel that he is exhibiting undue concern and leaning too much on others for advice and help. Yet the medical officer sometimes evaluates the mere verbalization of such reactions as evidence of an abnormal battle response. Panic, the pathologic counterpart of normal fear, involves temporary major disorganization of thinking and control by fear. Consciousness is usually clouded. The soldier's actions are usually wholly unadaptive and often compromise his safety. The most common expression of true panic on the battlefield is the panic run, in which, usually during a shelling, the soldier deserts cover and dashes about impulsively, exposing himself to flying shell fragments.

THE PRINCIPLE OF QUANTIFICATION OF THE BATTLE REACTION

It is important that the psychiatrist recognize two important quantitative points in the evaluation of symptoms of combat stress. The first, fixed by definition of terms, is the point at which the symptoms and signs exceed quantitatively, and in certain respects differ qualitatively from, those of the normal soldier of similar combat experience and therefore constitute a pathologic battle reaction. The second, determined by policy, is the point at which the pathologic battle reaction becomes an indication for treatment or evacuation. This point lies much higher on the scale than the first. Experience indicates that it should probably be equated with total incapacity in the combat situation. The soldier who has survived 5 or 6 months of combat usually develops symptoms that pass beyond the limits of the normal reaction. In the veteran soldier such symptoms representing a mild pathologic battle reaction as continued tremor, moderate insomnia, urinary frequency and urgency, various other semipersistent psychosomatic complaints, and mild depression, with lack of humor and spontaneity, are frequent. These symptoms are not incapacitating, and the value of the veteran's increased combat experience far outweighs them. Except under special circumstances the only treatment called for is rest on duty status. The soldier with a mild battle reaction remains effective for a longer time if he stays with his organization, and further symptoms are less likely to develop. The fact that a soldier presents himself to his medical officer with a battle reaction complex does not necessarily indicate that it is of pathologic quality, and still less that it is of incapacitating grade, warranting medical removal from combat. Hard-won experience dictates that only when the battle reaction becomes truly and objectively incapacitating should the soldier be medically removed from combat.

SUMMARY

In combat most soldiers experience symptoms that would be considered abnormal in a civilian setting. Normality of reactions must be defined in relation to the situation in which these reactions take place. This article attempts to describe and define the *normal battle reaction*. Pathologic battle reactions must be evaluated against such a base-line.



A Dynamic Approach to the Problem of Combat-Induced Anxiety

MAJOR EDWIN A. WEINSTEIN³

Medical Corps, Army of the United States

and

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The characteristics that distinguish the anxiety neuroses of combat from those of civil life are (1) the extraordinary precipitating factors in the perils and hardships of the environment; (2) its plasticity; (3) the importance of hostility and guilt, which is more immediately apparent than in most neuroses in civilians, and (4) the fact that it is in large part a group phenomenon, since the soldier is a member of a closely knit, interdependent group, and group effectiveness and attitudes as well as ability to identify with the group modify significantly his capacity to withstand the traumas to which he is subjected. These features are here considered in turn, with emphasis on dynamic factors.

ENVIRONMENTAL PRECIPITATING FACTORS

Threat of death. In our experience the psychiatric disability rate varied directly with the intensity of combat and the battle casualty rate. Offensive combat against an enemy strongly entrenched in difficult terrain produced many neurotic reactions. On the few occasions when the enemy withdrew with little opposition and casualties were low, the psychiatric evacuation rate was correspondingly minimal. The longer the soldier was in combat and the greater the number of scenes of death and mutilation to which he was exposed, the more disabling did his anxiety become. These simple facts are stated in order to emphasize that the forces that threatened the lives of American soldiers far outweighed all other causative factors in producing combat neuroses.

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Fatigue and hunger. Extreme physical hardship and discomfort were the lot of every rifleman, but physical exhaustion and hunger per se never caused the neurotic break. The conditions that produced physical exhaustion were usually those that produced the traumatic situation, and it was difficult to separate them sharply. In a swift advance, however, when wounds and deaths were few, the psychiatric rate was low, despite great expenditure of physical energy. A tired soldier did not endure his anxiety as well as the man who was fresh, but physical exhaustion alone was not the cause of his anxiety. Conversely, a man who developed anxiety felt weaker and complained of fatigue more than his fellows, even though all may have had about equal physical stamina in the beginning. We had opportunity to observe four soldiers with formes frustes types of progressive muscular atrophy involving the lower extremities. These men had driven themselves to the point of sheer physical exhaustion, but none developed pathologic anxiety.

Blast concussion was not a significant primary cause of combat neurosis. Less than one percent of admissions to the Fifth Army Neuropsychiatric Center were for true blast concussion, as manifested by a history of disturbed consciousness, retrograde amnesia, perforated eardrums, and evidence of pulmonary injury. With one exception men who had sustained a concussion did not develop an anxiety neurosis. Although about one-fourth of the soldiers with anxiety neurosis seen in the campaign against the Gothic Line in September and October 1944, gave a history of having been "knocked out" by a shell explosion, they showed no physical signs of injury, their amnesia was not retrograde, and they characteristically told of "coming to" in the comparative safety of a battalion aid station. When necessary for treatment, the forgotten episodes could usually be recovered easily during a pentothal interview. A history of antecedent mounting anxiety was commonly obtained from these men, and their clinical picture did not differ from that of patients with anxiety states who did not report unconsciousness.

This brief evaluation of extrinsic etiologic factors serves to stress the importance of psychodynamic factors. The genesis of combat neuroses is far more dependent on the meaning of the battle experience to the soldier than on physically disturbed bodily functions.

PATHOGENESIS

Combat-induced anxiety is progressive but highly plastic. The process can be controlled by removing the soldier from combat and subjecting him to a therapeutically sound program. Rest, encouragement, explanation, and proper barbiturate therapy serve to slow its

course. Many of those with the milder neuroses can be returned to effective combat duty. The history of the average soldier with an anxiety neurosis reveals that he was frightened when he went into combat; he trembled during a barrage but recovered when it lifted. After several traumatic episodes his tremor and anxiety continued even when the shelling had stopped. At first he took cover only at the reasonably close approach of a shell, but gradually he tended to rush to a fox hole at the noise of any shell, whether near or distant, enemy or American. He had once thought his chances of survival as good as those of any other soldier, but finally developed the obsessive idea that each enemy shell was aimed directly at him and that no fox hole was deep enough to protect him. He began to think continually of the men who had been killed or wounded. In some soldiers this process led to disability after a few days or weeks, in others only after several months of combat.

The progress of anxiety was clearest in the group of veteran infantrymen afflicted with what Sobel labeled the "old sergeant syndrome." Most striking in these men was their sense of guilt. They often felt personally responsible for casualties occurring in their platoon, and many, ashamed that they had not been able to carry on in command of their men, asked for reduction in grade. In most instances they had not requested evacuation but had been ordered to report to the aid station by their company commanders. All the "old sergeants" had formed close attachments within the platoon or company and had been sustained by pride in themselves and loyalty to their comrades. As the inevitable losses occurred, these sources of motivation gradually diminished and became insufficient to forestall the eventual disability. Feelings of guilt, expressed by almost all patients with severe anxiety states, seemed most intense and characteristic among the "old sergeants."

The neurotic anxiety reaction usually continued to progress after the soldier was removed from combat, and the clinical picture tended to change strikingly as the patient was evacuated rearward. During the initial stage the soldier was still within the division or army area and his anxiety was in many cases not expressed somatically, but headaches, backaches, and gastrointestinal complaints became common as he was evacuated farther to the rear. Insomnia often became more troublesome and noise sensitivity tended to increase.

In North Africa during the early days of the war the base section hospital patient, hundreds of miles from the front, usually exhibited apathy and lowered morale. He was irritable, listless, disinterested, lacking in concentration, and unresponsive to efforts to interest him in occupational therapy. He seldom liked to discuss his battle experi-

ences and was resistant or hostile to interviews. When he managed to evade the watchful eye of the ward nurse and became intoxicated, he was often violent and abusive. He had to be persuaded to go to the movies and walked out if the film dealt with war. He rarely wrote to friends still in combat. It was unavailing to assure him that he would not be returned to combat.

There were several reasons for this. The soldier had been removed from the morale-sustaining atmosphere of his combat group and was no longer bolstered by pride in his organization and loyalty to his comrades. He was now a patient, not a soldier. He had exchanged his fighting clothes for a pair of pajamas. His changed status not only caused feelings of failure and inadequacy that required justification, but also intensified his feeling of guilt at having left his comrades. If he was on a ward with patients who were wounded or physically ill, these feelings were aggravated. The development of somatic symptoms was an attempt at justification and gave some relief from his sense of guilt. It can be seen why reassuring these men of their safety did not help them. It was natural for them to be resentful and uncomfortable when combat was mentioned, but fear of returning to the front was not the only factor motivating them. Guilt was rarely expressed openly, but was covered with such rationalizations as "I'd be no good to them, anyway," or "I'd go back if I were able," or "All the old boys are gone."

As these principles became recognized, psychiatric patients were segregated from other groups, hospitalization was shortened, and the "base section hospital syndrome" was largely forestalled. It was not enough merely to remove a man with a moderate anxiety state from combat. He needed desperately to regain his self-respect. As soon as he had been helped to recover some degree of composure—usually a matter of only a few days—his greatest therapeutic need was prompt assignment to a service job in the rear, where he could actively justify himself by giving direct support to the men still in combat.

THE ROLE OF HOSTILITY IN COMBAT

A knowledge of the effective soldier's method of handling anxiety is essential if the development of incapacitating anxiety in combat is to be understood. Every soldier who enters combat develops anxiety. As this anxiety mounts under stress, the soldier develops hostility and resentment against those whom he considers responsible for his plight. Ideally this hostility is translated into purposive action against the enemy, a course designed to remove the immediate source of anxiety. If the soldier is well led, is adequately trained, and feels that he is part of a potent group, this proper direction of hostility is facilitated.

If the tactical situation is such as to hinder the effective expression of hostility, the soldier's anxiety increases roughly in proportion to the number and severity of the traumatic episodes he experiences. During many phases of the Italian campaign the nature of the fighting hampered the physical expression of hostility toward the enemy. The rifleman, while "sweating it out" under repeated enemy, and occasionally "friendly," barrages was able to fire at the enemy an average of only four or five times a month. Under these circumstances anxiety rose when the external traumas became severe and frustrating and units were repeatedly decimated.

It is important to emphasize that the level of "normal" anxiety rose in direct proportion to the severity and duration of the external stimuli and diminished when hostility could be expressed successfully or when the soldier was removed from danger. On the other hand, when his control of his anxiety began to fail, his reactions became neurotic in that they were disproportionate to the external peril. The neurotic soldier responded with anxiety not only to the "real" environmental situation, but also to his own internal conflicts as well. Hostility itself took on exaggerated meanings for him and the expression of hostility became more difficult even when the real situation permitted it. Thus the sources of anxiety were multiplied.

The neurotic soldier seemed to evaluate the traumatic episodes of battle in terms of his own experience with hostility. Some soldiers had histories of distinctly unsatisfying efforts to express their normal aggressive trends. In others the combat experience appeared to be their first serious defeat in dealing with their own hostility, though minor reversals, common in the past of everyone, had probably revealed to them earlier the potential perils of aggressive self-expression. In other words, every soldier to some degree carried in his background the sources of vulnerability when confronted with a need to express excessive hostility, and the release of hostility sooner or later became accompanied by neurotic guilt and fear of retaliation. When the events of battle stimulated hostility the ill soldier unconsciously, in the distorted fashion of the neurotic, began to interpret the scenes of death about him as the destructive effects of his own aggression. The shells fired by the enemy became, symbolically, the agents of punishment. When a shell burst near him and he was "knocked out," the event represented the fate he so richly deserved. It was natural for him to feel that each shell had his name written on it and that no fox hole was deep enough to protect him from an avenging fate. Thus a high level of anxiety soon accumulated in the neurotically reacting soldier. He was unsuccessful in coping with the situation by using his hostility. His aggressive pattern, loaded with guilt and fear, could

not be directed successfully against the enemy, and expressions of hostility merely increased his anxiety.

When the external traumas had been extremely severe, when buddy after buddy had been killed and the soldier himself had been wounded, a slight neurotic predisposition was sufficient to lead him finally to believe that he was being pursued by a vengeful environment, that his "number was up," and that the enemy was aiming shells at him. His magnified guilt was thus expressed clearly and consciously. Although initially the veteran soldier had better defenses against neurosis than the man who developed a neurotic reaction after a few days or weeks of combat, the mechanics of decompensation were in the end much the same for both.

Why was hostility sooner or later expressed so futilely in our patients? We were primarily concerned with the soldier's acute reaction in combat, but vital clues to this reaction were found in his previous personality make-up, that is, in the set of reactions and patterns of behavior with which he responded to each new situation. The normal healthy person is able to direct his hostility toward the attainment of useful and satisfying goals and accomplishes these aims without significant guilt or fear of punishment. He feels no need to hold his drives constantly in check or do penance for the effects of his own aggression. When he encounters frustration or competition he does not respond with outbursts of rage, nor does he invariably withdraw. Rather, he counters with purposeful, constructive action designed to overcome or circumvent the source of his frustration. The neurotic uses of hostility differ in many ways from the normal. The chief groups observed were the passive-dependent, the overtly aggressive, and the compulsive-obsessive. The various elements of these groups were common components of the histories obtained from acute psychiatric casualties.

Passive-dependent group. This group includes those who shun all overt expression of aggression and withdraw from any situation likely to arouse hostility. They are passive, timid, fearful, and unable to fight or watch a fight. They avoid the scene of an accident, dread entering a hospital to see a sick friend, and in general are unable to face traumatic events or express a purposive aggressiveness that would protect them against anxiety. Their hostility, covered by a rigid shell of timidity and passivity, is entirely unconscious. It is rarely expressed openly. Unsatisfactory family adjustment is characteristic of these men. Despite their resentments, they are usually dependent on one or both parents. Since the expression of hostility toward a person on whom one is dependent produces anxiety, their hostility necessarily remains unconscious, and an ambivalent

attitude is developed toward the parents.⁵ Enuresis in childhood, an inadequate substitute for a more direct challenge to society, is a common symptom among these men. The pattern of withdrawal in these passive types may make them seem schizoid to the examiner. Anxiety develops early when these men enter combat, and many seek medical aid and evacuation before anxiety becomes severe. They make poor soldiers. Many never fire their rifles in combat. They are the despair of the battalion surgeon and the division psychiatrist, not to mention the company commander. The following case report illustrates their reaction in combat.

CASE 1. A 25-year-old private was admitted to the Center on 8 December 1944. He had experienced 3 weeks of combat. A letter written by his platoon sergeant gives a colorful account of his conduct: "He is very high-strung and has no control whatsoever over his nerves or actions. I personally have never seen him fire his rifle. When all the others were out of their holes and in firing position he would seem to be 'froze' in his hole with his head down. I know he is a devoted Bible reader and has sworn off drinking and cussing, whereas the rest of the men are just the opposite. The more they see of the front, the more they drink and cuss. All in all I believe he does not come up to par with the average infantryman and is decidedly a bad influence on the other men in the organization."

On examination 2 days after evacuation from the line he showed very mild anxiety and expressed his fear of returning to combat. His background was that of a timid, passive, fearful person who had never been able to express aggression in any form.

Overtly aggressive group. This group is quite different from the first. Instead of repressing their hostility toward a brutal, alcoholic father, for instance, they have responded with outbursts of temper and violence. They are impulsive, irritable, and resentful of any authority that symbolizes the parental figure. This resentment may be expressed in outbursts of rage, fights, disciplinary infractions, or alcoholism. These men try to gain security and stave off the threats of others by open attacks, usually not purposive or constructive. In combat such soldiers may perform feats of bravery, but when their physical expressions of aggression toward the enemy are frustrated, marked fear of retaliation develops and anxiety is produced. The resultant hostility cannot be redirected at the enemy, for the soldier feels that its expression would only bring retaliation. In line with his basic resentment toward parental figures, he is likely to turn his hostility against his own army, which has placed him in this dangerous situation. He develops a neurosis characterized by great hostility, irritability, and little guilt. In contrast to other types of neurotic patients, these men are likely to go AWOL from battle. Many develop anxiety quite early in combat, though some do well for a

⁵ Karen Horney: *The Neurotic Personality of Our Time*. New York: W. W. Norton & Company, 1937.

time. When they decompensate, however, they do so with intensity and suddenness. Case 2 is typical.

CASE 2. A staff sergeant was admitted to the Center on 12 October 1944, after 140 combat days. He was anxious, complained of fearfulness, and had a "jelly-like" feeling in his stomach. He was moderately sensitive to noise, and the sound of truck motors bothered him. He thought continually of the Germans he had killed and of our wounded. He slept poorly. Two recurrent dreams were described. In the first a truck was coming down the road and the patient seemed unable to get out of the way. In the second he was shooting a cannon, but only BB shot came out of the barrel. He was a large, muscular man who had been regarded as one of the toughest and most courageous members of his division. He had hitherto experienced little anxiety in combat and had regularly volunteered for patrols, a rather unusual trait among experienced infantrymen. He frequently had spells of anger during which he performed acts of violence. On one occasion he shot some prisoners who were trying to escape, and he enjoyed killing Germans. The incident that precipitated his evacuation was the stabbing of two Germans in close combat. In an artillery barrage several days later he became extremely anxious. In civil life he had been an amateur boxer and saloon brawler. He left home at the age of 16 because he could not get along with his father, who beat him. He had a marked desire to excel others. His philosophy was: "I don't take nothin' from nobody."

Comment. This overtly aggressive soldier made an excellent adjustment for a time. He "cracked" suddenly when overcome by fear of punishment for his own acts of aggression. The absence of depression and conscious guilt was of interest. A different picture of poorly resolved aggression is presented in case 3, in which there are also features of the passive-dependent type.

CASE 3. A 19-year-old private was admitted to the Center on 15 May 1944. He was one of a group of men who had been severely demoralized by poor leadership and heavy enemy action in the first few days of the break-through of the Gustav Line. He had had 1 month of defensive combat during which he had felt fearful and apprehensive. Three days before his admission his unit had gone into offensive action, and he was evacuated from the line in a state of confusion and agitation. Although oriented, he could not give a coherent account of his battle experiences and was tremulous and tearful. He stated that while going up on the advance he had felt like shooting the man in front of him. He expressed great fear of the dark and begged repeatedly and frantically that he be allowed to return to his ward before evening. "Don't leave me alone in the dark," he said. "Sometimes I feel as if I could kill the dark."

He had a weak, easily excitable mother who had had "heart attacks" for many years. The patient was extremely devoted to her. His father was also easily upset, and quarrels between the parents were frequent. The patient stated, "Every time they fight I have a fit." The "fits" were severe tantrums in which the patient "saw black" and committed acts of violence. On one occasion he severely injured a fellow pupil in school after an argument. He had had enuresis until the age of 12, had stuttered, and had been mortally afraid of thunder, lightning, and the dark. He was excessively timid in the face of traumatic situations, illness, and accidents. He did not engage in sports and avoided excitement. He had been eager to join the Army and had had a herniorrhaphy performed at

his own expense in order to do so. He was consciously well motivated, but said that it would be impossible for him to shoot a German, and he had never fired his rifle in combat. He was evacuated to a base section hospital where his disturbed state cleared. After 2 months in a reconditioning center he was returned to duty where he promptly became panicky and was again evacuated in a tense, retarded, confused, pseudopsychotic state.

Comment. This soldier was a total loss in combat. He represents an extreme type of poorly resolved aggression. He was overtly fearful and tempestuous. When his hostility was stimulated by the stress of combat, he recoiled in panic from the consequences that would be evoked.

Compulsive-obsessive group. A representative of this group is over-careful, overconscientious, tends to worry, exercises great circumspection, and pays undue attention to detail. While full-blown rituals and phobias are uncommon, a soldier with mild compulsive-obsessive traits may be encountered in the combat zone. Owing to his meticulousness and conscientiousness he makes an excellent garrison soldier. He is amenable to discipline and attentive to details exasperating to others, and so often becomes a noncommissioned officer. He exhibits a strongly ambivalent attitude toward the family situation. While he may be overtly devoted to a neurotically ill mother, he harbors a great deal of unconscious aggression and accompanying guilt, manifested by extreme concern lest the object of affection become ill or injured. In order to curb his hostile impulses and protect those toward whom these impulses are directed, he erects a system of safeguards. He must be considerate, careful, neat, and orderly. He cannot pass a beggar on the street without experiencing a great rush of sympathy, and may give away his last dime. He is overly solicitous of the ill. By these acts and emotions he is unconsciously doing penance for the effect of his own aggression. In combat the dead and wounded are unconsciously regarded as manifestations of his own aggression. Guilt and anxiety arise early in combat (see case 5). A strong sense of duty causes him to endure his anxiety as long as possible, and his feelings of guilt may lead him to perform heroic acts. When he finally becomes incapacitated, his illness tends to be severe and prolonged, with much depression and conscious guilt. Sometimes he drives himself to a point where his symptoms are almost psychotic (see case 4).

CASE 4. A private in an armored infantry regiment had done well in 4 months of combat in Tunisia and at the Anzio beachhead. In the drive on Rome he was subjected to a heavy barrage, became tremulous, "froze" in his fox hole, and was evacuated. After rest and sedation he was still mildly anxious and depressed, but returned to duty. Four weeks later he was readmitted in an extremely tense and retarded state. He described his progressive anxiety in combat, a premonition that his "number was up," and a sensation of difficulty in getting his breath. He had developed severe phobias and obsessions. "Something tells me that if I

stand in a certain place I'm a dead man. If I crack the branch of a tree, it's like it is bleeding. If a fellow asks me for money I have to give it to him or else I will be punished. All of a sudden I get an idea that if I don't count up to 100 we'll all be dead."

He could not get the image of the dead and wounded out of his mind. He had stopped carrying a gun in combat because he was afraid he might accidentally kill one of our own men. His background was characterized by an ambivalent relationship to a chronically ill mother. He was devoted to her. When he left the house he would worry lest she have a "spell" before he returned. He had never married. "My mother came first," he said. Along with this devotion he had feelings of resentment and spells of irritability. At his work he often developed obsessive thinking. "Something would say do it this way, or do it that way." Anxiety was expressed in restlessness that led to fairly frequent changes of jobs. He had always overreacted to traumatic situations. He could never attend funerals or visit a sick friend in a hospital and was invariably over sympathetic to cripples and beggars. "I would give them my last dime."

Comment. This illustrates the severe reaction that may develop in a person with unresolved aggression and obsession.

CASE 5. A sergeant in an infantry regiment was admitted to the Center 3 days after the start of the offensive thrust across the Garigliano River. He had had 1 month of combat duty. He belonged to a platoon disorganized and demoralized by an unfortunate tactical situation. After 2 days of rest and sedation he was still agitated. He expressed vividly his fear and horror of what he had seen, along with a sense of guilt at having left his comrades. He repeated, "I'll work, I'll do anything to help them. Let me dig graves!" His background was that of an extremely compulsive, overscrupulous, conscientious person with a great deal of underlying guilt. He was extremely concerned over his mother's health. She had had a nervous breakdown after he entered the Army, a misfortune for which he felt responsible. He did not marry until he joined the Army for fear that people might think he was evading the draft. A friend had offered to pay his way through college, but he refused because he feared he would not be able to return the money. His feeling of oversympathy was often preceded by a momentary resentment. An incident while he was a grocery clerk illustrates this reaction. "An old lady would come into the store. I had a feeling I didn't want to fool with her, but I'd end up by not only waiting on her, but also by carrying her bundles back on the truck." He described his habit of counting. "I could never pick strawberries. It would run me crazy, counting them."

Comment. This meticulous and conscientious man adjusted splendidly in garrison. His sense of guilt, with its underlying unconscious hostility, was expressed in his frantic desire to act as gravedigger for his fallen comrades.

Most neurotic patients show characteristics of more than one group. Thus timid soldiers may have compulsive characteristics or react at times with outbursts of temper. The three types are presented separately for convenience and clarity. Some may prefer to classify the first group as constitutional psychopaths and the second group as inadequate and aggressive. It is more constructive, dynamically, to

consider them in terms of their neurotic drives, rather than on the basis of fixed personality defects. In the second group, particularly, recognition of the underlying dynamics of anxiety is important for proper evaluation and treatment.

GROUP IDENTIFICATION AND MOTIVATION

The soldier's ability to adjust himself in his group is an index of his defense against anxiety. The normally reacting soldier identifies with his group, partakes of its common culture and aims, and takes on the "protective coloration" of the group. If he is able to form healthy attachments his resistance to the anxiety-provoking stresses of combat will be high. Poorly handled hostility not only handicaps the soldier by preventing him from directing it purposefully against the enemy, but also hinders him in using the group for his protection. Unless motivated otherwise, he carries over to the Army the psychologic reactions he has shown earlier in the family and the civil community. The Army has assumed the protective and authoritative functions of the family. It directs, clothes, feeds, and shelters the soldier, and he tends to respond with the pattern of hostility and resentment and loyalty and devotion that he has shown in the earlier group.

The timid, passive person makes a poor group identification. He does not enter into the common strivings of the group. His schizoid habits make him a poor mixer. When there is need for common aggressive action he retires into his shell of passivity. Whatever attachments he forms are personalized, dependent ones, patterned on those of his past life. When the officer or noncommissioned officer on whom he has relied is removed, his chief source of protection is gone and he is helpless. Furthermore, because of the personalized nature of the relationship, he finds it difficult to turn his loyalties to a new leader. His pattern of dependence is an ambivalent one, with underlying hostility. When the person on whom he is dependent is killed or wounded, he experiences a corresponding measure of guilt, fear, and anxiety.

The overtly aggressive person likewise has difficulties in relation to his group. His individualism and resentment toward authority have been described. With intelligent handling he may make a good adjustment for a time, particularly if he is favorably disposed toward the aim of the group—for example, killing the enemy. It is when the inevitable anxiety produced by combat begins to mount that he develops difficulty. When he is no longer able to direct his hostility against the enemy, he is likely to turn it against those forces of au-

thority, the company commander, the Army as a whole, or his draft board, which he feels are responsible for his plight.

CASE 6. A private was admitted to the Center after 10 days of combat in the drive against the Gothic Line. A week earlier he had become tense, weak, and shaky when his platoon was immobilized by enemy artillery fire. A disorganized situation arose and the soldier and several others "took off" to the rear. He reported to his battalion aid station in a state of considerable anxiety and was evacuated to the division clearing station. After several days of rest his anxiety was resolved and he was discharged to duty. On his way forward his group was shelled. He wept and trembled and he was again evacuated. On examination at the Center he showed no overt anxiety. He talked at great length about the injustices that he had suffered in the Army. He had been drafted despite the fact that he was married and had a defense job. He should have been a message center clerk but was wrongly placed in the Infantry. He could see no need for our fighting in Italy and felt that we were "stooges for the British." He believed that his officers had mismanaged the tactical situation and that this mismanagement had led to his breakdown. None of his resentment extended to the enemy. He had never fired his rifle in combat, although he had had several opportunities to kill Germans. He said that if he shot a German it would be on his conscience. "They are white, like us," he said. In civil life he had always resented authority and found it difficult to get along with people. He could not endure arguments or competition and avoided situations provoking them. As a child he had had temper tantrums and frequent quarrels. He preferred fishing to team sports. He had never adjusted well in a group. His father was an alcoholic and when inebriated would terrorize the family. The patient, however, protested great affection for him. He got along well with his wife. "She understands me and leaves me alone," he said. He had never been able to "stand" ill people or beggars, who, he felt, imposed upon him.

Comment. Though possessed of neurotic traits, this soldier had not manifested disabling symptoms in civil life. With his inability to handle any aggression-arousing situation, it is not surprising that he developed overwhelming anxiety in combat. In a person who has resented authority since childhood, the turning of his hostility toward the Army is understandable. The difficulties of motivating such a person and incorporating him into a group are obvious.

The soldier with compulsive-obsessive traits has different problems. Because of his considerateness and conscientiousness he is usually well liked within the group. He makes close friendships, but these relationships are ambivalent, with marked unconscious aggression. When casualties occur he develops great guilt and anxiety. Thus the group, instead of supporting him, multiplies his points of vulnerability. His devotion to duty and his sense of obligation to the group cause him to endure his anxiety, but he is unable to use the group to resolve his anxiety.

The normal soldier may also develop attitudes toward the Army that precipitate anxiety. When a soldier who already has some normal combat-induced anxiety encounters a situation that arouses re-

sentment he is unable to express constructively, his anxiety increases. If he feels that the group is not working in his interests, his ties with it are loosened and he acts instead as an individual, and so less effectively. When anxiety becomes uncomfortable, the normal soldier directs his hostility toward those responsible for his predicament—the enemy. This transfer is facilitated when the soldier is properly motivated to fight. Although the majority of men who served with the Fifth Army expressed no hatred of the enemy and were not fully aware of the political implications of the struggle, many men with little or no unresolved aggression slowly developed anxiety and were able to carry on in combat for long periods with scarcely any other motivation than small group attachment and loyalty. It was evident, however, that the more directly the soldier's hostility could be channeled against the enemy, the more efficiently was he able to protect himself against anxiety. It was thus highly desirable that the soldier know why the enemy had to be killed. Informing the soldier does not arouse purposeless rage or create undesirable hate but, rather, provides for the proper expression of hostility when it occurs.⁶

The group with which the average soldier identified was the rifle company or platoon. Within this group he formed the loyalties and friendships that motivated him to endure great dangers and hardships. The company was, however, a notably perishable group, and when great losses occurred the soldier found himself alone and isolated, his sources of motivation nearly exhausted. A more stable and enduring group was needed. Ideally this would be the Nation itself, but the Nation was apparently too large and intangible a concept for the soldier to grasp in a meaningful way. A more suitable group was the division, and efforts were made to stimulate the soldier's emotional identification with this durable, but still familiar, unit. Thus it appears that anxiety in combat is best controlled by building up an effective, indestructible group with which the individual soldier can identify, and motivating the soldier strongly to adopt the aims of the group so that he can direct his hostility without reservation against the enemy. In this way many mildly neurotic soldiers are enabled to adjust in combat. It is neither possible nor advisable to screen out all men with neurotic traits, and it is possible to motivate many of them to become an integral part of a potent fighting group.

SUMMARY

The precipitating factors, the typical development and course, the relative importance of certain dynamic processes, and the great pro-

⁶ See section on "The Base Section Psychiatric Hospital."

phylactic value of social pressures all serve to distinguish combat-induced anxiety from the neuroses of civil life. Mortal danger is by far the most important single contributor to disabling anxiety in combat. Psychiatric casualty rates vary more consistently with the intensity of fighting than with any other known etiologic factor. Plasticity and responsiveness to proper handling characterize the early stages of combat-induced anxiety states. Hostility plays an important role in the development of combat anxiety. When aggressive effort arouses feelings of guilt and a sense of impending retribution, the soldier's anxiety in combat rises and persists disproportionately to the physical peril in his environment. Neurotic anxiety in battle may be rooted in predisposing factors in civil life. Anxiety develops also on a comparable basis in the "normal" veteran whose previously healthy attitudes toward aggressive behavior have been distorted, chiefly by repeated frustrations in battle. Complete identification with a durable group is a valuable prophylaxis against neurotic anxiety.



Malingering in Combat Soldiers

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Medical Corps, Army of the United States

From the military-legal point of view, malingering is punishable under the 96th Article of War. It is usually difficult, if not impossible, to furnish unassailable proof of guilt in such cases, and even when the malingerer is convicted and punished he succeeds in his purpose, the evasion of dangerous duty. Practically, the major object in dealing with such cases is to return the malingerer to duty. The primary problem is thus one of proper recognition and disposition of malingerers by medical officers. For the military psychiatrist the detection and management of malingering has an importance much greater than its actual frequency would seem to justify. A few undetected instances of malingering can be highly demoralizing to the troops and destructive of the psychiatrist's prestige and effectiveness. Conversely, the psychiatrist's role may be strengthened by a realistic but unvindictive management of malingering.

In civil practice malingering is usually seen only in psychopaths—inherently unstable persons whose deep exhibitionistic and sadomasochistic trends play a large part in the complex psychodynamics of their asocial behavior. While one does see malingerers of this type in the military services, the problem in general is quite different. It is important to remember that the hardships and restrictions of military duty increase the tendency to evade duty by simulation. Combat stress is so great that soldiers with no history of psychopathy may be tempted in this direction. Minor variants of malingering, or "gold-bricking," are often condoned by seasoned soldiers in garrison or on maneuvers. In combat, however, attempts to evade duty by simulating disability arouse great resentment in line soldiers. Unless malingerers are promptly detected and returned to duty, morale may be impaired and confidence and respect in the Medical Department severely shaken. The detection of malingering, especially in combat soldiers, thus becomes an important duty for every medical officer. Good medical discipline will prevent loss of manpower through the evacuation of soldiers who are not seriously ill or who are malingering

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or merely unwilling. The medical officer must also exercise care in recognizing exaggeration of minor symptoms secondary to actual illness or injury.

The first requisite for the correct diagnosis of malingering is a high degree of alertness. Since psychiatric syndromes are occasionally simulated, it is necessary to be familiar with the various components of the combat neurosis. With sufficient experience it is usually not difficult to differentiate between the atypical behavior of the simulator and the sometimes bizarre reactions of patients with severe anxiety states or hysteria. The simulator is constantly on guard against detection. He makes false or contradictory statements or resorts to easily refuted lies. Sometimes he overplays his hand in an attempt to convince observers that he is really ill. The alarming nature of his actions may sometimes trick the unwary. The patient who is obviously dramatizing should always be suspected. The malingerer is prone to feign emotional disorder, perhaps because he thinks that detection by objective methods is difficult. Amnesia is the most frequently simulated symptom. We have come to look with great suspicion on patients who present themselves with a story of complete amnesia, especially when the usual signs and symptoms of the severe anxiety state are lacking.

CASE 7. A soldier was admitted to a general hospital for psychiatric observation from another military hospital, to which he had been admitted for injuries sustained in an automobile accident in which several unauthorized civilian passengers were killed. He had suffered a minor scalp laceration in this accident. When the wound was healed and he was to return to duty, and also to face serious charges, he complained of complete loss of memory for events both before and after the accident. The circumstances and the atypical onset raised the suspicion of malingering. In the general hospital he aroused much sympathy by dramatically begging for early treatment so that he might be restored to normal. He claimed to know about himself only what he had written in a diary. His reply to all questions was: "I know only what is in this book." Although psychiatrists in the general hospital suspected him of malingering, he was treated with intravenous sodium amytal on two occasions, the first time with 0.5 gm., the second time with 0.8 gm. Under narcosis he was negativistic and refused to answer questions or countered with, "No more questions! Don't ask any more questions!" He denied all knowledge of the accident and of his name, family, military organization, and present location, except in reference to his diary. He was discharged to another hospital before conclusive evidence of malingering could be established. It was learned subsequently that he was persuaded to confess after he had passed through two other hospitals, where he had obstinately stuck to his story.

In this case the onset of amnesia was quite different from that observed in association with anxiety states or hysteria, in which memory loss is usually precipitated by the traumatic incident, which then becomes part of what has been forgotten. Patients with genuine

amnesia would not remember that they had written a diary, nor would they attempt to produce "evidence" for their loss of memory.

The reaction to intravenous sodium amytal is typical and probably diagnostic of malingering. Patients with hysteria or anxiety states are eager to be helped, cooperate well, usually talk freely, and under narcosis display emotional release in relation to recalled material. In contrast, the conscious efforts of the malingerer to maintain his deception defy all attempts to influence his amnesia. He reacts negatively under narcosis, and his conscious control is unshaken. In case 7 the patient malingered in an effort to evade punishment. We were unable to obtain information about his premilitary personality or adjustment. Case 8 illustrates malingering with intent to avoid combat duty.

CASE 8. A medical officer entered the Seventh Army Psychiatric Treatment Center with alleged loss of memory. He had left his unit on the previous day, wandered into a medical installation, and was tagged and sent in for psychiatric observation. He had visited the center a short time before, when he brought in a patient. It was known that, some weeks before, he had been transferred from a general hospital to become battalion surgeon in a combat unit. His superiors stated that he had lost weight and was known to be apprehensive about his new duty. When interviewed he mumbled: "Won't anyone do something for me? I can't stand those shells." It was known that he had not been exposed to shelling. He denied knowing the interviewing officer, whom he had met earlier. When asked to multiply 2 times 2, he did so correctly, but when asked to multiply 9 times 8, he first answered 70, then 72. He claimed complete amnesia. His behavior and his assumed confusion had a forced character, which, with his obviously untruthful statement about exposure to shelling, made it clear that he was malingering. He was told that he was simulating and was warned that failure to give up his symptoms would result in serious charges. By evening of the same day he asked to see the examiner, stated that he had regained his memory except for the period of hospitalization, and asked to return to duty. There was no evidence of anxiety and no history of civilian neurosis. He was returned to duty.

In some instances malingering is secondary to a moderate anxiety state, as illustrated in case 9.

CASE 9. An infantry lieutenant was admitted to the Fifth Army Psychiatric Center because of a panic reaction in combat. He was somewhat confused from sedation, but showed the usual manifestations of an anxiety state. He was further sedated for two days. It was then reported that he had developed amnesia. When addressed by name he answered: "I don't remember my name, but that is what they call me here." In an interview he continued to claim total amnesia and produced letters, papers, and identification cards, saying that he knew about himself only what he could learn from them. Under sodium amytal he was unproductive. He remembered only some heavy shelling. Under narcosis he was found to be very sensitive to noise. It was pointed out that there was a discrepancy between this reaction and his alleged amnesia, which included the period he had spent in combat. He was told that it was clear that he was feigning amnesia and that he would be court-martialed unless he promptly gave

up this symptom. Soon after going back to the ward he reappeared and tearfully confessed. He had had extreme anxiety in combat from the start, but nevertheless stuck to his post for 6 weeks. Just before his admission a shell killed some of his men. He recalled running around, shouting, and weeping. In the hospital he became utterly terrified at the thought of returning to combat and decided to feign amnesia.

This officer had a moderate anxiety state, with insomnia, anorexia, noise sensitivity, and marked tremor. For reasons of individual treatment, but particularly for disciplinary purposes, it was necessary to detect and curb the simulation. This man was evacuated to the rear after a stern warning. It was felt that his underlying anxiety was of sufficient severity to make further combat duty impossible.

This type of malingering is quite different from that described in cases 7 and 8. The two types may be classified as primary, premeditated, and without essential underlying psychiatric or physical illness and secondary, superimposed on an existing acute psychiatric disorder. The primary type resembles that seen in the civilian malingerer. It is usually obstinately maintained by the patient. The secondary type is usually much more easily uncovered and removed. Cases 7 and 8 were both of the primary type, though case 7 more closely resembled the malingering seen in civil life. In case 8 there was no underlying psychiatric disorder of significance. The reaction appeared in response to anticipatory apprehension. In case 9 malingering was secondary to a moderate anxiety state. The relative ease with which the deception was uncovered in cases 8 and 9 is the rule in dealing with malingering in combat troops.

Occasionally one sees attempts to simulate a psychotic disorder as in case 10.

CASE 10. An infantry private was brought into the Seventh Army Treatment Center in a highly disturbed state. He staged a most dramatic performance. He waved his arms around, made incoherent noises, blew out his cheeks, blew his nasal secretions over his face and clothes, appeared utterly unresponsive. After a night of this behavior, which disturbed the entire ward, he was given intravenous pentothal. At first he resisted violently and muttered "Never, never!" but then fell asleep. When awakened by supraorbital pressure and aware of what was going on, he resumed his bizarre behavior on an even more exaggerated scale. The whole reaction was forced and resembled no known psychiatric syndrome. He was warned to give up this obvious simulation lest charges be preferred. When returned to an empty ward he continued to resist. He was unruly, untidy, and noisy. On the following morning he still clung to a partial deception by assuming confusion. Further admonition served to remove this symptom as well. This man gave a history of familial psychopathy. His father was an alcoholic. His mother had been insane. After giving up his simulation, he said that he had been afraid from the first moment in combat. He had stayed 3 months until he had become shaky after another soldier was wounded near him on the day of admission. When he wept his lieutenant sent

him to the aid station, where he began the bizarre behavior that caused his referral to the center. He was returned to duty.

Attempts to simulate psychosis are usually easy to uncover. Even well-educated persons who practice this form of deception usually fall so far short of the mark that diagnosis is not difficult. They behave according to the lay conception of insanity, with such bizarre dramatization that the result becomes ridiculous. The features of known psychoses are missing, and it is apparent that contact with reality is maintained. Case 10 illustrates the striking attempts to attract attention and sympathy and the negative reaction to barbiturates. This patient also had an underlying mild anxiety state, but not of incapacitating degree.

Case 11 illustrates an attempt to simulate a hysterical symptom.

CASE 11. A soldier was referred to a station hospital for treatment of hysterical paralysis of the left wrist following a mild injury during training. A median nerve injury was suspected at another hospital, and neurolysis was attempted. After this procedure the patient complained of numbness of the entire left hand, and said that he could not extend his fingers. Examination at the station hospital showed apparent loss of sensation to pinprick and light touch over a glove distribution on the left hand. The fingers were held partly flexed and returned slowly to their former position after passive straightening. Sodium amytal was given intravenously to relieve what was thought to be a hysterical symptom. The patient resisted this treatment and under narcosis reacted with negativism. He resorted to echolalia as a counter to questions. He then began to dramatize and rolled on the floor, but took great care to avoid injury. This unexpected but typical response to narcosis firmly established the diagnosis of malingering. Conclusive proof was furnished when the soldier was seen to use his "paralyzed" hand when he thought himself unobserved.

The differential diagnosis between hysteria and malingering may be very difficult, for the evaluation of hysterical symptoms depends largely on the patient's own statements. The symptoms in this case were consistent with a diagnosis of conversion hysteria. The soldier's objection to barbiturate narcosis, which he feared might lead him to tell the truth, should have led to suspicion. The negativistic reaction to narcosis clinched the diagnosis. In doubtful cases of this sort the use of barbiturate narcosis is often helpful in making the correct diagnosis.

The problem of self-inflicted wounds must also be discussed under the subject of malingering. Since these men are evacuated through surgical channels, our experience with this group is limited. Such soldiers invariably claim that the wound was accidental. There are never witnesses, and it is usually impossible to prove deliberate intent. In one such case, in which it appeared likely that the wound had been inflicted with deliberate and premeditated intent to evade duty, we had an opportunity to employ intravenous barbiturate narcosis. The

soldier reacted negativistically in the same manner as other malingerers. It is possible that this method may prove useful in differentiating the deliberate from the accidental in this difficult group. In one overseas group the Inspector General's Department routinely investigated all self-inflicted wounds. This policy served as a partial deterrent to this form of evasion. It is axiomatic that, unless residual disability prevents it, soldiers with self-inflicted wounds should be returned to duty with their units as soon as the injury is healed. When deliberate intent can be proved, court-martial procedures should be initiated. In suspected cases the proper investigation should be conducted before the soldier is evacuated from the army area.

Soldiers who exaggerate physical symptoms ("goldbricking" or "riding the sick book") are guilty of a minor variety of malingering. Usually it is unnecessary to regard such offenses with the same seriousness as the premeditated efforts already described. Soldiers are usually easily discouraged from continuing such behavior, and they should then be returned to duty. Inexperienced medical officers play into the hands of such soldiers when they evacuate them for further study or treatment under such vague labels as "ill-defined condition" or "not yet diagnosed."

TREATMENT

Since the object of treatment is to detect the malingerer and return him to duty, morale is impaired if such cases are evacuated to the rear unrecognized. The offenders must be discouraged by firm handling. The malingerer, once revealed, is told that his deception is known and that court-martial charges will follow promptly unless the simulation is dropped or if the offense is repeated. Usually this approach is followed by confession. Only two of the cases treated in this way refused to relinquish their symptoms. Charges were preferred against these men, but both decided to return to duty before their cases were tried. To our knowledge, none of those returned to duty after a warning attempted to mangle a second time.

SUMMARY

Although malingering is rare among combat troops, such cases occur and must be detected. Every medical officer who has practiced combat psychiatry has missed some malingerers before his suspicions were sufficiently aroused. Once the needed experience has been gained, the medical officer readily develops a keen intuition in uncovering these cases. Intravenous barbiturates are often of great help in making the diagnosis. The response of the malingerer to narcosis is negativistic and unproductive. Amnesia is a favorite

subterfuge of the simulator. The atypical nature of the symptoms, the contradictory or inconsistent statements of the patient, and their forced or dramatic behavior are all diagnostic leads. Court conviction is difficult to obtain. The correct procedure is to return the soldier to duty. This measure acts as a deterrent both to the offender and to other soldiers who may be tempted to use such methods to evade duty.



Organization of the Psychiatric Services in World War II

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It was clearly demonstrated in World War I that the most effective treatment of combat-precipitated neuroses was the immediate correction of these disturbances in the forward areas. Unfortunately these principles were later disregarded, and it was necessary to reestablish them in World War II. In March 1943, during the Tunisian campaign, psychiatrists were assigned to the forward evacuation hospitals, and the percent of psychiatric casualties returned to full combat duty rose to about 50. This system of treatment in the evacuation hospitals continued effectively during the Sicilian campaign. Early in the Italian campaign, however, because of the greater demand for bed space for wounded, it was often necessary to evacuate psychiatric casualties to base section hospitals with their treatment uncompleted, and the percent of those returned to duty consequently decreased to about 25.

In order to circumvent this difficulty an army neuropsychiatric center was established in the Fifth Army on 21 December 1943, and bed space in this center was assigned exclusively for the care of combat neuroses. In October 1943 the War Department again authorized the position of division psychiatrist. With the assignment of psychiatrists to the divisions in combat, the percent of combat neurosis cases returned to full combat duty rose to 60, and afterward varied from 45 to 70. Thus, by March 1944 the essential elements of the forward areas psychiatric services had been established. These services continued to function effectively, with minor alterations, until the end of the war. To give orientation and unity to the succeeding discussions, the organization of psychiatric services is described in the form evolved by the end of the war.

The first echelon of treatment for the combat-incurred psychiatric casualty was normally the battalion aid station. At this level the soldier was examined by the battalion surgeon and a decision was made to return him to duty, send him for a short period of rest to the regimental aid station, or evacuate him to the division clearing

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station. The criteria for making this decision are discussed in the section on "The Battalion Surgeon as Psychiatrist." On arrival at the division clearing station, the patient was examined immediately

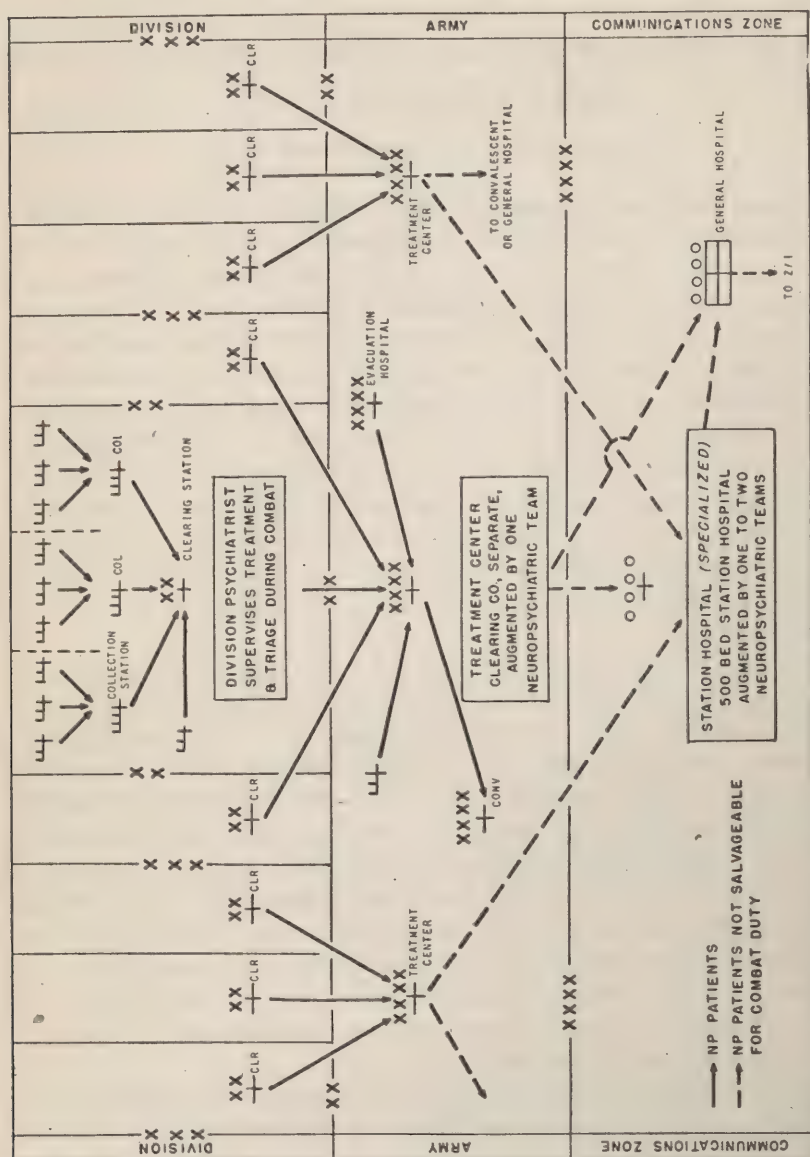


FIGURE 1. Schema of treatment and evacuation of neuropsychiatric patients in a theater of operations. (During World War II there were no "psychiatric teams"; psychiatrists were attached to special installations on temporary duty.)

by the division psychiatrist. If it appeared probable that he could be returned to effective duty within 3 to 5 days, he was sent to the division psychiatric treatment and rehabilitation center. If his re-

action was severe, he was evacuated as soon as possible to the Army Neuropsychiatric Center. Patients retained for treatment at the division center were usually returned to full combat duty if their progress was satisfactory. Those who did not progress satisfactorily were evacuated to the army neuropsychiatric center for further observation and therapy. The various problems involved in the treatment and disposition of psychiatric cases at the division level are discussed in the section on "Psychiatry at the Division Level."

With the exception of patients admitted directly to the army neuropsychiatric center from nondivisional units, all admissions for psychiatric disorders were sent to this center by the division psychiatrist. In addition, some patients who had been admitted to the evacuation hospitals with a nonpsychiatric diagnosis and who were subsequently given a psychiatric diagnosis were transferred to the center. Thus patients arrived at the army neuropsychiatric center from: (1) nondivisional units by direct admission, (2) the evacuation hospitals by transfer, and (3) the division psychiatrist. Those sent by the division psychiatrist constituted the majority. The army neuropsychiatric center normally retained patients for 3 to 6 days and returned them to full combat duty, evacuated them to the base section psychiatric hospital for further treatment, or, in the case of men who did not require further treatment but were unfit for further combat duty, sent them through administrative channels for reclassification and reassignment. The details of treatment and disposition at the center are given in the section on "Psychiatry at the Army Level."

As the efficiency of the treatment organization increased, the function of the base section psychiatric hospital became more and more confined to the treatment of the most severe cases. The methods used in treating such cases are discussed in the section on "The Base Section Psychiatric Hospital." This treatment organization is based upon the principle that early and continuous treatment of the psychiatric disorders of combat is mandatory if maximum therapeutic efficiency is to be achieved. It must be the aim of the psychiatric services not only to return as many men as possible to effective combat duty, but also to provide the optimum type of therapy for those who cannot be returned to combat duty, and thus minimize the effects and duration of the neurotic process in such patients. Our experience leads us to believe that the system developed and used in this theater accomplished these purposes. A diagrammatic representation of this organization, with minor modifications for proposed future use, is shown in figure 1.



The Battalion Surgeon as Psychiatrist

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The surgeon of an infantry battalion in combat must combine the skills of auto mechanic, chaplain, platoon leader, engineer, military policeman, and doctor. The health and hygiene of the battalion and the heavy burden of conserving its fighting strength rest on him. Every man who leaves the unit for other than tactical or administrative reasons passes through his aid station. With the battalion commander he is responsible for maintaining a sufficient number of fighting men on the line. He is called upon to plan routes of evacuation, construct litter trails, and command detachments.

Although the large number of men returned to the line by the battalion surgeon and the contribution he makes toward maintaining the morale and fighting spirit of the infantryman do not appear in the record, the evacuation rate of a regiment directly reflects the medical discipline of its battalion surgeons. If the surgeon is too lenient in his evacuation policy many men who need only reassurance to remain on the line are lost to the battalion. If he is too harsh and considers all anxiety a manifestation of cowardice, the AWOL rate will mount.

How much psychiatry does the battalion surgeon have occasion to practice? In rest periods psychosomatic complaints, particularly gastric disturbances, account for about one-half of those reporting on sick call, according to the estimate of eight battalion surgeons of at least 6 months of combat experience. Failure to recognize the true nature of these cases results in loss of manpower for the battalion and loss of prestige for the surgeon. Men evacuated for minor psychosomatic complaints tend to remain in hospitals for long periods, only to return with a "reclassification complex," despite negative laboratory and clinical findings.

In combat relatively few psychosomatic patients were evacuated and a large number of battle neuroses, resulting from the tactical situation, lack of confidence in command, climatic conditions, and a host of other factors, were seen. Of all the men entering battalion aid stations in combat, it was estimated that 40 to 75 percent, inclusive of

⁹ Formerly division psychiatrist, 34th Infantry Division.

men wounded in action, presented behavior problems of one kind or another. This fact was little known outside the infantry battalion, for only about one in five was evacuated from the aid station. If, however, the battalion surgeon was overlenient, a large number might arrive at the clearing station. One instance was seen in the battles of the Volturno River, when over 50 cases of "exhaustion" were evacuated from one battalion in 2 days. Every battalion surgeon at some time forestalled panics by giving reassurance and exercising authority. In light combat, psychiatric cases made up a large proportion of the patients seen. In heavier combat, when men representing borderline cases were busily engaged in attack or counterattack and could not return to the aid station until the technical situation was more stable, such cases were seen less frequently.

In combat one of the surgeon's main tasks was screening psychiatric casualties. As a rule he had little time to spend with any one case, and he learned to distinguish at a glance the incapacitated soldier from the one who was still effective. Treatment forward of the division clearing station was most effective. Experience proved that the transition from the battalion area to the clearing station produced resistance to treatment, that good results were more easily produced at the battalion level than farther to the rear, and that the rate of return to duty diminished with successive echelons of treatment. At the battalion level the psychiatric difficulties commonly seen were anxiety states, hysterias, malingering, and constitutional inadequacies. Psychotic men were rarely seen and when seen were quickly recognized and evacuated.

The anxiety states seen at the battalion level differed little from those encountered in the rear, except that the patterns showed a startling similarity at this early stage, when the neurosis was amorphous and unfixed. Coarse tremor, with repeated jerking motions, was common and might easily be overvalued by the surgeon. Four signs were found most reliable in determining whether the soldier should be returned to duty: his degree of accessibility, his degree of physical fatigue, his willingness or unwillingness to return, and the tactical situation. If the soldier was uncommunicative, withdrawn, and seclusive, the chances of returning him to effective duty were unfavorable. The more accessible he was, the better was his response to reassurance and suggestion. The greater the soldier's physical fatigue, the greater was the possibility of returning him quickly to the line. It was astonishing how rapidly a rifleman recuperated when physical fatigue played the preponderant role in his anxiety state. Paradoxically, these soldiers who were most willing to return to their company were often most ill, while those who said flatly that they

could not "take it" and showed no objective symptoms of anxiety were much better handled in the battalion zone than in an evacuation hospital. With respect to the tactical situation, it was not difficult to return a soldier with a mild anxiety state to his company if it was known that he would be in reserve the next day. True concussion, as described in the literature, was rarely seen; most purported cases proved to be anxiety states. It is well to ask every man who reports at the aid station with a history of a near miss or of being blown up by a shell whether he was actually unconscious or merely dazed. All soldiers with "concussions" that show no signs of organic injury, e. g., wounds, perforated eardrums, or hemoptysis, or of severe anxiety should be retained and treated at the aid station.

Hysterias presented no great problem at this level. The more striking symptoms usually developed farther to the rear. Gastrointestinal symptoms, usually attributed to C or K rations and, therefore, given little attention, and mild pareses of the legs, called "fox hole bends" or "fox hole legs," were the most frequent complaints. The infantryman's insight into the part emotion played in the development of these symptoms was fairly acute.

Malingering. The volitional element in psychosomatic disease must be evaluated subjectively, but it is unlikely that the battalion surgeon will miss the true malingerer. The simulator is seldom seen in heavy combat. He is usually AWOL. The tendency of all soldiers to try out new medical officers should be anticipated and circumvented.

Constitutional inadequacies. Men of poor moral fiber constituted one of the main problems of the line officer and the battalion surgeon. Such men, in total disregard of other soldiers on the line, would coolly announce to the surgeon that they could not "take it any more" or were "too nervous to stand all them shells." Because of insufficient time for examination, this type of soldier was often evacuated. It must be remembered that in combat most men have anxiety. The level at which it becomes incapacitating, not its mere presence, is the criterion for evacuation. The best way of dealing with such men is to adopt a standard procedure prohibiting a soldier from reporting to the medical officer without the explicit permission of a line officer or the first sergeant. This measure prevents such men from leaving the line in large numbers in the hope that the battalion surgeon will evacuate them. Usually they will not argue long when told succinctly that they must return to their companies without delay.

Criteria for evacuation. There is no set rule as to which psychiatric cases should be retained and treated at the forward aid station and which should be evacuated. Practice must be governed in part by the tactical situation. In a rapidly moving advance an aid station

may change its location three to five times in 24 hours. In other situations it may remain stabilized for 3 or 4 weeks. The length of time available to hold patients, therefore, determines the amount and scope of treatment that can be given at the station. In general, however, the psychiatric cases that must be evacuated as soon as possible are the psychoses, the severe anxiety states manifested by panic and intense emotional instability, and severe manifestations of hysteria, such as paralysis, fugues, or complete amnesia. A written note from the company commander, describing the soldier's behavior on the line and requesting evacuation, is often an aid to decision. The battalion surgeon must, however, be wary lest this device be abused and medical channels be used to rid the company of psychopaths and constitutional inadequates who are command problems. New and inexperienced line officers should be cautioned against indiscriminate referrals of this type.

BATTALION TREATMENT OF PSYCHIATRIC CASUALTIES

Treatment at the forward aid station must be short. The battalion surgeon must avoid using such terms as "shell-shock" and "crack-up," or implying that the soldier is mentally ill. A quick decision should be made as to which patients are to be evacuated without delay. Such patients should be tagged, sedated if necessary, and put in a safe place to await evacuation. All soldiers who are to be evacuated should be told so immediately and reassured that they will get rest and sleep in the rear. No mention of reclassification or reassignment should be made. The impression should be given that these men will sometime rejoin the battalion. It is not always possible to separate the patients to be evacuated from those to be treated, but it should be done whenever possible. After screening those who obviously require treatment at the clearing station, the battalion surgeon must take care of those to be held in the battalion area.

The cornerstones of forward treatment in combat are sedation, explanation and reassurance, suggestion, and exhortation.

Sedation. A quick-acting barbiturate is imperative. It is useless to use phenobarbital or any other slow-acting drug when an immediate effect is necessary. All patients should be given 0.2 gm. of sodium amytal immediately on arrival at the aid station to lower irritability and distractibility. This initial dose never produces somnolence in a tense and apprehensive soldier, but considerably reduces his tension. When the battalion surgeon calls him in for questioning he is usually more relaxed and reassurance is more likely to be accepted. Whether prolonged sedation can be given depends on the ability to hold the patient, and thus, in turn, on the tactical situation. Large initial doses should be avoided, and no more than 0.4

gm. should ever be given at one time. Soldiers who are to be evacuated should be sedated just before evacuation, but the reassurance of going to the rear will in most instances alleviate anxiety. If evacuation is held up by lack of transportation or shelling of routes, most patients will require 0.2 gm. at 4-hour intervals. Good judgment must be used. No man should be made a litter patient unnecessarily. If return to duty within 6 to 8 hours is contemplated, the dosage must be lessened accordingly. All medication should be oral. Morphine or intravenous sodium amytal are contraindicated, for they make a litter patient of an otherwise ambulatory patient. Oversedation also delays treatment by the division psychiatrist, who must wait until the patient has recovered from the effects of the drug.

Explanation and reassurance. When the ground has been prepared by preliminary sedation and brief inquiry into the symptomatology, the patient should be assured that he has a common type of transient emotional reaction. When there is mild anxiety, reassurance should be confined to saying that the symptoms are a manifestation of fear, that everyone has fear, and that fear is a normal thing in combat. In certain cases it is necessary to explain to the soldier that his symptoms are slight and that there are many men still on the line who are as nervous as he, or more so. If the battalion surgeon is respected and has gained a reputation for fairness, this type of reassurance is eminently successful.

Suggestion. Evacuation should never be mentioned to men destined to return to their companies. The soldiers should continually be assured that his tenseness will pass away and that he will be able to return to his unit after a few hours of sleep. This type of suggestion should be reinforced at frequent intervals, depending on the holding time. As far as possible, the aid station personnel should participate in such suggestion.

Exhortation. Exhortation ranges from an appeal to the soldier concerning the necessity of aiding his comrades on the line to a form of plain talk in which he is asked whether he has actually gone so far as to abandon them. The latter measure should be used sparingly and judiciously, for it may exacerbate an anxiety state. As in all psychotherapy, common sense and judgment are the most important tools at hand.

When these methods were used about 50 percent of all men presenting themselves for relief of anxiety were returned to duty within 1 to 6 hours.

THE PROBLEM OF 24- AND 48-HOUR TREATMENT

When obviously unsalvageable soldiers have been evacuated and those who require brief treatment have been returned to duty, a fair number will remain who can be returned after 24 to 48 hours of

sedation and rest. The treatment given will depend on the frequency with which the aid station makes tactical moves. If it is known that the station will not move for 24 hours or more, a small number of soldiers, after sedation with 0.4 gm. of amytal, can be rested in the vicinity of the station. A house or a good defilade will provide space for rest under supervision when there is not room in the station. Heavier sedation can be used when it is known that no advance will be made for 48 hours. It is impracticable to attempt to hold sedated soldiers when moves are frequent. If the aid station is moving continuously, several alternatives are possible: rest at a rear aid station, duty in a zone of less anxiety, or, as a last resort, rest in the kitchen area.

The best treatment, rest at a rear aid station, where control and supervision are available and the soldier's return to his outfit is assured, can seldom be arranged. When a soldier is sent to a rear aid station, a note should accompany him explicitly stating the period of his stay. No mention should be made of evacuation. Each man should report to the forward aid station before returning to duty. Moving a soldier one zone to the rear for a short time often relieves anxiety. The average rifleman feels that the area in which his company command post is located is much safer than the one where he is fighting, since it is to the rear. This type of thought exists throughout a division, and although any particular zone may not be safer at the moment than one farther forward, it nevertheless symbolizes a zone of lesser anxiety. The zones correspond to the successive echelons of command, beginning with the patrol and continuing with the company command post, the battalion command post, and so on back to the division rear echelon. Soldiers with mild anxiety taken out of the outposts and placed in the company command post as runners for a 24-hour period are content with such duty. Though in the long run it may be more dangerous than that of rifleman, the soldier feels safer, since he is one step back to the rear. Actually, the transition is one of attitude. The soldier has gone back one "anxiety zone." Because of this attitude, men from battalion headquarters are more difficult to treat in the aid station than are men from the rifle companies, for they have not been removed from their customary zone of anxiety.

Men should be rested in the kitchen area only as a last resort and then only when strict control of the area is assured. Unless there is a responsible noncommissioned officer detailed to return patients to duty after a specified time, the kitchen should never be used for rest and sedation. Without such control it becomes a straggler depot. After a soldier has been treated for 24 to 48 hours it is imperative that he be seen again before he returns to the lines. Strong suggestion of

the type already described should be given, and the soldier should then be returned to duty in the company of another, since loitering on the route back to their companies is usual in such cases, particularly if there is shelling nearby.

GENERAL FACTORS

Repeaters are given longer rest periods, or, if rest periods are unavailable, are evacuated. In some divisions a reserve company is kept for such men, who are sent back to this company for periods ranging from 3 to 14 days. Since the company is under the command of an infantry officer, return to duty is facilitated. No man should be evacuated directly from the reserve company. He should first have a trial on duty and then, if evacuation proves necessary, he should be cleared through the battalion surgeon. Unless such precautions are taken medical control is lost and the reserve company becomes a dumping ground for soldiers who would ordinarily be returned to combat. During combat, psychosomatic complaints are usually ignored by the battalion surgeon, particularly during difficult attacks or advances. The soldier must be incapacitated by his illness to be evacuated. Men presenting themselves with mild illnesses are reassured briefly and told that they have no serious disease. Most infantrymen learn that they must "sweat out" mild illnesses during combat. One, therefore, sees a flood of patients with psychosomatic complaints on sick call following relief from the line. Most of these men have been carried along on promises of one sort or another during combat. If their illness is sufficiently severe they are evacuated immediately on withdrawal from battle.

To make these various methods of treatment effective there must be close cooperation between the battalion surgeon and the line officer. When there is no give and take between the medical officer and the company commanders the battalion surgeon finds himself handicapped on all sides. One of the first lessons learned by the battalion surgeon is that line officers have only a limited number of easy assignments available for the weaker members of their companies, and for that reason often refer a soldier for evacuation on the ground of psychoneurosis when the difficulty is actually constitutional inadequacy or mental deficiency and should be handled administratively. It is well to have a good rapport in regard to such cases. Company commanders should be instructed not to send a psychiatric battle casualty directly to the kitchen, reserve company, or rear aid station before he has been seen by the medical officer. Otherwise the battalion surgeon will find a large number of men bypassing his aid station who would ordinarily have been returned to the line. In one division such an outcome was prevented by a strict rule that no

patient would be accepted at the clearing station with a diagnosis of "exhaustion" unless the tag was personally signed by the surgeon of his battalion. Some regimental surgeons required all patients tagged "exhaustion" to be sent through the regimental aid station.

Neither the battalion aid station nor the surgeon is protected from flying shell fragments by the Geneva Convention, nor are the medical officer and his personnel immune to physical and mental strain in combat. After two weeks of grueling combat the battalion surgeon himself is likely to develop some degree of anxiety. His state is usually reflected in one of two ways: either the exhaustion rate goes sky-high or it ceases altogether. In the first instance the medical officer has identified himself with the battle neurotic and says to himself, in effect, "If I can't get out, at least you can." This type of symbolic self-evacuation accounted for one occasion when over 50 cases were evacuated from a battalion in two days of light defensive combat. The opposite reaction, causing the exhaustion rate to cease altogether, is that of overreaction, symbolized by the thought, "If I can't get out, you can't either." The only answer to this problem lies in frequently rotating battalion surgeons to collecting and clearing companies.

THE BATTALION SURGEON IN BIVOUC

Following the relief and withdrawal of an infantry division from the line, the battalion surgeon is confronted with a host of problems. The first and most important is psychosomatic disease. Many soldiers are relieved of their symptoms by the cessation of combat, but others continue to suffer from various aches and pains that are obviously not organic. Treatment varies greatly, but the single most important factor in therapy at the battalion level is a thorough history and physical examination. Interest in the condition of the individual man will in itself improve many of the milder cases. When a complete examination is given, the soldier is satisfied that the surgeon's statement is correct. The infantryman resents cursory physical examinations and histories and the routine administration of treatment. He is usually quite willing to accept the fact that his ailments have an emotional basis if he feels that his case has been adequately investigated.

The more severe psychoneurotic manifestations should be referred to the division psychiatrist, but every infantry medical officer should familiarize himself with methods of explaining the emotional nature of symptom production. Such phrases as, "It is all in your head," and "This is all in your imagination," should never be used. They prevent cure and amelioration of symptoms and antagonize the patient as well. Sick call can make or break a soldier's morale.

While in bivouac the battalion is busily engaged in reorganization, training programs, and the assimilation of replacements. The battalion surgeon should play an active role in the training program. Particular attention should be given to new replacements without combat experience. Short talks to these men concerning the manifestations of fear and the means of controlling them will prove of great value when the unit returns to combat. The fact that every man is afraid and develops "the shakes" at one time or another should be stressed, along with the normality of anxiety in battle. Sick call can be greatly reduced if the men are informed of the nature of psychosomatic disease in a rational, lucid, nontechnical lecture. As a rule they will have already experienced "battle gastritis" and recognized it as emotionally based, and as a result they can be readily educated regarding other such manifestations.

Another important phase of the battalion surgeon's work in bivouac is the instruction of company officers in the handling of fear and panic reactions in combat. The fact that psychoneurosis depletes company strength often brings these officers to conclude that all psychoneurotic soldiers are "yellow and cowards." Instruction in the etiology and symptomatology of the anxiety state, given at informal gatherings, in nontechnical terms, will correct such misconceptions and assure some preliminary screening by those able to observe the soldier on the line, and so will materially reduce the number of constitutionally inadequate soldiers reaching the aid station in battle.

THE ARTILLERY AND ENGINEER BATTALION SURGEON

The surgeon of an artillery or engineer battalion has a large daily sick call, since his aid station is easily available to the men. In engineer companies a tour is usually conducted during combat, and sick call is held at fairly specific hours of the day. The surgeon, therefore, has more time to spend with each patient, psychosomatic disease can be investigated more fully, and more time can be spent with those suffering from mild anxiety. The mildly neurotic patients may be treated at the service battery or company of the battalion under supervision of an aid man. The problem of the moving aid station hardly presents itself. Severe traumatic neuroses are relatively rare, despite the many casualties suffered in counterbattery fire. The essentials of treatment are the same as for the infantry battalion.

SUMMARY

In the prevention and treatment of the psychiatric casualties of combat the battalion surgeon plays a crucial role. When the medical discipline of a division is high, the problem of neuropsychiatric disease will be well controlled.

Psychiatry at the Division Level

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In considering the neuropsychiatric program at the level of the division treatment center it should be remembered that many soldiers showing the milder neurotic reactions and states of physical fatigue are returned to duty by the forward medical services, i. e., by the battalion and regimental surgeons. Accordingly, at the division treatment center there is a greater concentration of the more severe reactions than is found at the forward stations, and at the same time less concentration than is found at the army psychiatric center. In the early part of World War I both the British and French medical services learned that war neuroses were more successfully treated at forward areas than at rear installations. In order to put this well-established fact into practice, psychiatric specialists were added to the staffs of American divisions in January 1918. They achieved excellent results, and, as they gained in experience, were able to return as many as 50 to 60 percent of soldiers with acute war neuroses to combat duty. These results were achieved by simplified methods at forward installations. Their methods, experience, and achievements were duly noted and included in the medical annals of World War I. At the beginning of World War II no provision was made for the forward treatment of psychiatric casualties. Again we learned the hard way. The neuropsychiatric casualties were at first treated at rear installations, and only about 5 percent were returned to combat. The demonstration by Hanson and Tureen in 1943 of a successful return to combat duty of 70 percent of the patients treated in forward areas reestablished the principle recognized 25 years before. In October 1943 the War Department authorized the addition of a psychiatrist to the staff of the division surgeon, and thus began psychiatry at the division level.

It is the special concern of the division psychiatrist to prevent the loss of manpower from psychiatric causes, including not only the obvious cases of "battle neurosis," but also all disease in which the functional component is the primary cause for the soldier's removal from combat. Many of these cases are loosely grouped under the term

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"psychosomatic." The psychiatrist is also concerned with morale and disciplinary problems that entail the loss of manpower. Self-inflicted wounds, another evidence of the functional escape from battle, and their number and frequency, become his concern. The maintenance of fighting efficiency, insofar as it depends on mental health, lies in his province. It is an important part of his work to diagnose and eliminate promptly those soldiers who are mentally or emotionally unfit for their duties. The psychiatrist must not limit himself to the narrow realm of obvious mental disorders. He should have close contact with the medical officers who treat and evacuate medical and surgical casualties. He must be familiar with the workings of the division medical evacuation system. His work is closely linked with that of G-1 (personnel), G-3 (operations and training), AG (classification and assignment), and the judge advocate. If he is to be of the greatest help to his unit he must know and confer with these various departments. The duties and functions of the division psychiatrist vary according to the tactical situation. In combat he is mainly occupied with the treatment of combat-induced anxiety states. As the division goes into rest areas his work shifts to medicolegal examinations and the instruction of medical and line officers in the diagnosis, management, and prevention of neuropsychiatric casualties. His duties are best understood in relation to the precombat, combat, and postcombat periods of the division.

THE PRECOMBAT PERIOD

During the precombat period the psychiatrist, like other staff officers, must make preparation for impending battle. The first consideration is to insure ample facilities for the sorting and treatment of acute combat casualties. The neuropsychiatric treatment unit should have equipment and personnel to accommodate 100 patients at a time. A planned effort should be aimed at the prevention of combat psychiatric casualties. Since the majority of such casualties arise from the infantry, the psychiatrist's efforts should be mainly directed toward this branch. A series of lectures and informal talks should be given to the medical and line officers of the infantry regiments, who are in direct contact with the soldiers and are thus in a position to influence their behavior.

Informal discussions with the battalion surgeons offer an excellent means of meeting these men and acquainting them with the neuropsychiatric program. It is important not to create the impression that the psychiatrist is another "rear echelon officer," and thus presumably an unpractical person who intends to keep every neurotic soldier on full duty-status. The battalion surgeon will appreciate

information on how to deal with the neurotic casualty, the criteria for evacuation, and ways of differentiating the normal battle reaction from the abnormal reaction. The battalion surgeon should be urged to treat mildly neurotic and physically exhausted patients at his aid station when it is conveniently located. He should be assured that if a soldier referred to the division psychiatrist is returned to duty, a complete report will follow. Consultations with the psychiatrist during rest periods should be encouraged.

The psychiatrist's basis of procedure should be described to the battalion surgeons. It should be made clear that if a man is disabled, whether from wound, injury, disease, or neuropsychiatric causes, he should be evacuated. If, however, his complaints are mainly subjective, the objective findings are negative, and his disability is questionable, he should not be evacuated. The combat period is no time for diagnostic surveys or hospitalization for insufficient cause. Stress should be placed on the "gain in illness" syndrome, which often occurs with evacuation and the subsequent fixation of symptoms that may render the soldier neurotically disabled. The majority of subjective complainers are returned to duty after hospitalization and become constant "sick book riders." There is an inevitable lowering of morale in any unit in which the medical channels become the easy way out. Such units have as high an AWOL rate during combat as units whose medical officers have a fair, but firm, policy.

The unhappy and discontented soldier who returns from the hospital stating that "they did nothing for me," whose talk is of reclassification, and whose poor morale is contagious to the other men of the unit, should be considered. After two or three such ineffectual hospitalizations even the volitionally sick soldiers cannot be deterred by disciplinary means, and become useless to their units. They either become disciplinary problems (AWOL) or are evacuated as "exhaustion" cases with a note from the company commander pleading that they not be returned to combat. It is especially dangerous to evacuate such men during a combat period, when the gain in illness is most operative and others are stimulated to act in a similar manner.

The psychiatrist should be aware that the battalion surgeon feels, for good reasons, that he is the "forgotten man" in military medicine. He endures more physical hardship and mental trauma than his medical colleagues in the rear, his promotional opportunities are limited, and he has many duties. Naturally he does not take to additional problems. He does understand clearly the necessity of conserving the fighting forces, however, and will cooperate when properly informed and motivated.

The importance of the regimental surgeon in the neuropsychiatric program should not be overlooked. As a staff officer he is concerned with the neuropsychiatric rate of his unit and is therefore sympathetic toward the preventive program; he controls the medical evacuation policy of the regiment; he directly influences and controls the procedures of his battalion surgeon; and, in short, is the key figure in the intraregimental treatment of psychiatric casualties.

Line officers are best approached through a formal lecture, given at an assembly of all company grade officers of a regiment. At the outset, after the purpose of the lecture is stated, such terms as "psycho-neurosis" should be defined in simple language. The normal battle reaction and its difference from the abnormal reaction should be explained. It should be emphasized that the disabled soldier must be removed from combat, but that when the soldier shows only the normal battle reaction the line officer should be the psychiatrist and by reassurance or exhortation maintain the soldier on duty status. It is essential not to leave the impression that all men should be kept on duty at all costs. Rather, officers should be assured of cooperation in removing from combat the neurotically disabled soldier who is a menace to the security of others and communicates his panic reaction to others. It is important that the line officer realize the role of leadership in producing or preventing psychiatric casualties. The contagious nature of fear should be explained. Examples of the disastrous effects of panic in an officer may be cited, of the possibility that 50 percent of the men in a platoon may become psychiatric casualties, with the consequent peril to the rest of the men and to those in adjacent units when a unit is suddenly deprived of much of its fire power.

Psychosomatic disease, "goldbricking," and the problem of soldiers of poor character—the constitutionally inadequate—should be discussed, along with the line officer's part in keeping such soldiers on duty status. The danger of aiding the evacuation of these men by notes that state only their subjective complaints should be mentioned, but it should be made clear that the medical officer welcomes the line officer's comments concerning the soldier's ability to perform. A plea should be made for fair treatment of the soldier returned after psychiatric treatment, that he be given a fair trial of duty and not be subjected to discouraging or disparaging remarks from officers and others. There should be some discussion of the Army Regulations (AR 615-368 and AR 615-369) that provide for the administrative, as opposed to medical, discharge of alcoholics, drug addicts, trouble-making psychopaths, and of the inapt, untrainable, incompetent, and enuretic soldier. Line officers should be warned that such men, if hospitalized, will only be returned to duty.

The psychiatrist can operate most effectively at the level of the clearing company, which is the funnel through which all patients are evacuated from the division. It is important that he identify himself with this unit in order that its medical officers may understand and further the psychiatric program. Much will depend on his personality. As he meets other medical officers at meals and recreation the congenial psychiatrist can do much toward influencing their attitude toward the neuropsychiatric program and increasing their understanding of the psychogenic factors that are an inevitable part of military medicine.

A plan evolved from such informal discussions in one division clearing company may be of interest. Two goals were set up: to do better and more diagnostic work at the clearing company, and to reduce unnecessary hospitalization of soldiers with psychogenic disease. A division medical disposition board, consisting of all medical officers assigned to the clearing company, was established to examine and dispose of patients coming to the station with mainly subjective complaints. The psychiatrist acted as recorder. Patients were selected by the admitting officer and held in the clearing station ward on quarters status. Board meetings were held daily if necessary, but usually every other day. The soldier was brought before the board to be questioned and examined. The psychiatrist remained in the background and made no attempt to dominate the proceedings. After the soldier left, the board considered the disposition of the case. Discussion was free and often prolonged. The psychiatrist waited patiently and then, pencil in hand, asked for the board's diagnosis and decision. This procedure had a sedative effect on the medical guessing of some officers, who in such cases were often squarely confronted with the psychogenic aspects or volitional motivations of disease.

When a decision was made to evacuate a soldier to a hospital for further study, a copy of the board findings accompanied him, with a request that the hospital's findings be communicated to the board. Soldiers considered unfit for combat duty were evacuated directly to a hospital for reclassification. Those returned to duty were accompanied by a copy of the board proceedings for the battalion surgeon, a procedure that strengthened his hand in refusing subsequent evacuation for the same complaint and at the same time removed from him the onus of blame for such a refusal. This plan was successful in preventing up to 50 percent of unnecessary hospitalizations. Such a plan has the disadvantage that it operates less satisfactorily during combat periods, when the medical personnel is busily engaged in evacuation and other duties and the facilities for such patients are limited.

Consultations and routine admissions are part of the work of the precombat period. Many of the neuropsychiatric patients admitted to the clearing company are recurrent combat casualties. Others are referred from the medical disposition board. Referrals from battalion surgeons make up about one-half of these admissions. It is well for the psychiatrist not to be overconscientious about his return to duty rate at this time. A soldier who develops a chronic anxiety state in ordinary garrison existence will inevitably become a battle casualty. If administrative discharge appears to be indicated a detailed letter must be sent to the soldier's commanding officer, giving the reasons for discharge, recommending the proper disposition, and explaining why evacuation through medical channels is impossible.

THE COMBAT PERIOD

During the combat period, when the psychiatrist is mainly occupied with acute neuropsychiatric casualties, his work will be facilitated by a knowledge of the tactical situation. Such information can be obtained readily through the intelligence and operations sections of the medical battalion and from tactical maps showing which units are engaged and the names of towns and nature of the terrain through which fighting is progressing. With this knowledge he will be in a better position to assess the degree of physical exhaustion and mental trauma of his patients and to understand their stories. He will also know when to prepare for a sudden increase of psychiatric casualties.

The principle of the greater success of forward treatment of psychiatric casualties can be carried to absurdity. The truth is that the needed relaxation and rest for the patient must be obtained, either by heavy sedation in a "hot spot" or by removing him to a safe area. There are disadvantages in heavy sedation at this level: more personnel is needed to care for heavily sedated patients; the patient requires a longer time to recover from the influence of the drug; and even when used for only 2 days, heavy sedation like alcoholic intoxication has a demoralizing effect—the patient tends to drown in self-pity and is less able to re-establish such motivating factors as loyalty to his unit, pride, and other superego forces that keep him in combat.

The disadvantage of an extremely noisy and potentially dangerous site for the care of psychiatric patients was demonstrated when the neuropsychiatric unit of one division was located at the clearing company during the beginning of the Gothic Line offensive. About 40 patients were under treatment. Mild anxiety states became more severe with the continuous roaring of friendly artillery around the clearing company, and matters became much worse when the familiar

whistle of incoming shells was heard. Some patients rushed to slit trenches, others became more tremulous and tearful, and sedation had to be kept at a point of narcosis to make sleep possible. There was real danger that the site might be shelled, and protection of patients profoundly asleep is difficult under these circumstances unless they are deposited in slit trenches. On the following day, when the patients were removed to a safer area several miles to the rear, there was a prompt subsidence of acute symptoms, sedation became unnecessary, and after several days many of the soldiers were able to return to combat. A suitable area for such treatment is not necessarily one free of artillery noise. Friendly artillery rumbling in the distance and occasionally nearby is not necessarily a disadvantage, but may even be helpful in reminding the soldier that he is still in the war. During the period of recovery from physical exhaustion and acute anxiety patients should, however, be relatively free from actual danger.

Similar experiences were reported by a regimental surgeon who instituted intraregimental treatment of mildly psychoneurotic patients at the service company. This treatment proved a valuable adjunct in the preventive therapy plan of the battalion. Under this plan a soldier who became excessively fatigued or showed signs of impending neurotic disability was sent by the company commander with an explanatory note to the battalion surgeon, who examined him. If the battalion surgeon agreed, the soldier was sent to the regimental aid station, usually situated at the service company, without medical categorization. There he was given facilities to clean up and sleep, usually with slight sedation. Normally he was not counted as a casualty. After 36 to 48 hours he was returned to his unit, refreshed and relieved of much of his anxiety. The regimental surgeon supervised this installation, but since no real medical therapy of the orthodox variety was undertaken, the whole procedure was accomplished by nonmedical personnel. The object of the scheme was to prevent the occurrence of a disabling neurotic reaction in a stable person by allowing him a period of stabilization in relative safety to aid in rebuilding his psychologic defenses. The results obtained were excellent.

Experience indicates that during combat the division neuropsychiatric unit should operate as a separate installation, with its own mess and administrative facilities, and that it is best located 3 to 5 miles to the rear of the clearing company, on the ambulance route. Under these circumstances heavy sedation will not be needed and the training program can be conducted without hinderance. Even if the evacuation hospital is not far removed from the neuropsychiatric

unit, there is a definite symbolic difference between being sent to a hospital and being treated within the division, which is important in view of the secondary gain mechanism.

The psychiatrist need spend only a few hours a day at the neuropsychiatric unit. He should spend most of his time at the clearing company where he will be available for consultation and where his presence will serve as a reminder of the psychogenic element in illness. Here he can provide psychiatric opinions when asked "What do you think of this fellow?" or when he is invited to "take a look at this patient." As he undergoes the same trials and tribulations as others at the station the medical and administrative officers will be more inclined to accept his work as an important medical function and to cooperate by providing him with supplies and personnel.

Management of the combat psychiatric casualty begins immediately after his admission to the clearing station. The first step is the screening of cases and the prompt evacuation of severe and recurrent casualties to the army psychiatric center, with or without further sedation, as indicated. Only the mild and moderate cases are retained for treatment at the division level. This preliminary screening removes as many as 25 to 30 percent of the psychiatric admissions to the army psychiatric center, which can deal with them more effectively when they are "fresh," and leaves the slim resources of the division unit available for dealing with the less affected group. Actual results demonstrated that less than 10 percent of such screened cases were returned to combat from the army psychiatric center. The rest of the patients with mild or moderate reactions are housed in a special tent at the clearing company where they are given enough sedation to induce sound sleep for 12 to 24 hours. The initial dose of sodium amytal, the drug most frequently employed, varies from 0.2 to 0.6 gm. An additional 0.2 to 0.4 gm. may be necessary every 6 hours. For some patients no sedation is necessary. All they crave is a suitable place and an opportunity and they are asleep before the ward attendant arrives with the medication. Patients who arrive wet, hungry, and cold are promptly stripped of their clothing, wrapped in blankets, and given a hot drink and enough sedation to put them to sleep. Temperatures are taken on admission and again on the following morning.

Occasionally patients labeled "exhaustion" are found to have organic disease, such as infectious hepatitis, appendicitis, or malaria, with a fever of 101° F. or more. Such cases are promptly transferred to the medical section of the clearing company. The psychiatrist should be on the alert for such diagnostic errors, since in the hurry and confusion of the battalion aid station some errors are unavoidable.

Patients are interviewed briefly on admission and again more intensively the following day, or after they have slept for 12 to 24 hours. A thorough past history is seldom attempted, except when further information is needed for diagnosis or disposition. After an interview of 10 to 20 minutes the psychiatrist decides whether the soldier is suitable for treatment at the division level. Those selected for intradivisional treatment are told that they are physically and mentally tired. They are given some explanation of their symptoms in simple terms, assured in a sympathetic but positive manner that they are suffering only a mild temporary disability, and told that they deserve a few days of rest before returning to their units and will be taken to the division rest area that day. Occasionally a soldier voices doubt as to his ability to "stand" combat. He is reassured in a firm manner that only rest is required to restore him to normal. Often the soldier agrees with the opinion and leaves the interview expressing gratitude for the several days of promised relief from combat. It is important that the decision should appear to be made at this time in order to prevent "dispositional anxiety" during the rest period.

Patients considered unsuitable for treatment at this level are told merely that they will be given treatment at another installation. It is a sound and time-saving policy not to engage in argument with these patients since to do so merely creates a more difficult therapeutic problem for the next echelon. Experience proves that when a comment is written on the reverse of the emergency medical tag, the tag should be placed in a sealed envelope and given to the ambulance driver with instructions to deliver it to the admitting clerk at the next installation. Any other method gives the soldier an opportunity to read and be influenced by his own diagnosis. Even in dealing with the acute psychiatric casualty it is unwise for the division psychiatrist to state positively that the soldier is totally unfit for further combat, since because of the changing nature of battle neuroses, recovery for combat may be accomplished at the next echelon. Soldiers treated at the division neuropsychiatric unit comprise 60 to 70 percent of the total neuropsychiatric admissions to the clearing company. Most of them can be returned to duty.

The first day at the treatment center is set aside for rest and relaxation. Reading and writing materials are provided. Shaving is required and the necessary utensils and hot water are made available. During this 24-hour period patients are housed in ward tents and sleep on cots. On the following day they are placed in pup tents and the training regimen, consisting of short marches, calisthenics, and organized athletics, varied by lectures, orientation, and motion pic-

tures, is started. This regimen, continued for 2 days, is supervised by a line officer, assisted by noncommissioned infantry officers. Inclement weather may restrict the program. When possible, patients are taken to a shower unit where they can also obtain a change of clothing. No sedation is given at any time during the training regimen. A duty atmosphere is fostered and maintained by the fact that the majority will be returned to combat. A soldier who has completed 3 days at the training center is briefly interviewed by the psychiatrist on the fourth day. He is questioned about his general condition at this time. The ward attendants and the line officer keep notes on the sleep, appetite, general demeanor, attitude, and sociability of each soldier. These notes are relied on to indicate the general condition of the soldier. About 75 percent of these soldiers, constituting about one-half the total psychiatric admissions to the clearing company, were returned to combat. Recurrences from this group averaged less than 25 percent of the total number returned to duty from the division training center.

To summarize the various operations of the division neuropsychiatric unit: When not in combat the unit remains at or near the clearing company. During combat it is separated into a forward and a rear section. The forward section, consisting of the psychiatrist with several ward attendants, located at the forward clearing station and using its equipment, sorts all incoming psychiatric casualties. The work includes the prompt evacuation of patients with severe reactions, the detection and proper disposition of soldiers with organic illness who have been labeled "exhaustion," and the preliminary management of those deemed suitable for treatment at the division level. The psychiatrist is available at the clearing station for consultation the greater part of the day. The rear section of the unit, with its own mess and administration facilities, located 3 to 5 miles to the rear of the forward clearing station has the function of training and rehabilitation. It is nominally commanded by an infantry officer. The psychiatrist spends a few hours each day at this section, primarily to interview patients who are considered ready for return to duty.

CRITERIA FOR RETURN TO DUTY FROM THE DIVISION LEVEL

The psychiatrist must be methodical in deciding which soldiers are to return to combat. It has been made clear that severe anxiety states, terror reactions, severe depressive states, and gross hysterical manifestations are not suitable for treatment at the division level. The soldier with a moderate anxiety state, who reiterates that he "can't stand those shells," or "can't stand it any more," offers the most difficult problem in disposition at this level.

Objective Criteria

The psychiatrist experienced in handling acute combat casualties is often able to arrive at a decision for noncombat status disposition after a few minutes of observation. How the patient looks is most important. The following signs are discussed in order of their importance.

Apathy is often confused with fatigue. If it is the sole objective finding it is wise to defer an opinion until the soldier has had 24 hours of rest and sleep. Mild apathetic states are not unusual on admission and rapidly disappear with recovery from physical fatigue. If, after the soldier has recovered from fatigue, he continues to be preoccupied, takes little interest in ordinary activities, appears withdrawn, and sits alone, apparently absorbed in battle memories, he should be evacuated for further treatment.

Information received from others. Observations of the soldier's behavior by other observers, trained and untrained, are a valuable aid in evaluating his condition. For example, a note from the platoon leader or company commander stating that the soldier endangers the safety and morale of others by going into a panic state when there is shelling in the vicinity is of utmost importance and takes precedence over any other single sign or symptom. Such soldiers are almost invariably evacuated. On the other hand, a note that merely reiterates the soldier's symptoms has little value. Information obtained from trained observers in the neuropsychiatric unit is of great importance in determining the usual attitude and behavior of the patient. Thus a soldier whose behavior is observed to be within normal limits is returned to duty with less consideration of his subjective complaints.

Tremor and tremulousness. Mild to moderate degrees of fine tremor, as a single sign, should not be considered a bar to useful combat duty. Tremor of a coarse type or a generalized state of increased tension, even when moderate, indicates much unresolved anxiety and is an ominous sign of unfitness for combat.

Depression. True depressive reaction, if continued after 3 or 4 days, is a cause for removal from combat duty. Mild degrees of depression are common in soldiers faced with return to combat, and should not be considered disabling.

Restlessness and irritability. Some soldiers pace restlessly about, complain of insomnia, and cannot be interested in reading, writing letters, or other ordinary activities. This condition, when persistent, indicates a continuing state of tension and offers a poor prognosis for combat duty.

Noise sensitivity exceeding the limits of the normal battle reaction is indicative of a severe anxiety state. In the mild and moderate

anxiety reactions such sensitivity is seldom pathologic. The on-guard reaction, however, is common and quite normal in useful combat troops.

Emotional lability is one of the least reliable signs. Tearfulness alone should *not* be considered an indication of disability, but in conjunction with restlessness and irritability it is a significant sign.

Vasomotor lability. Elevated blood pressure, up to 160 (systolic), increase in pulse rate up to 120, and excessive sweating are not infrequent on admission. There is usually a return to normal limits after rest and sedation. The persistence of such phenomena, in the absence of other findings, should *not* be considered disabling.

The general attitude of the soldier is closely related to his motivation and willingness to return to combat. Neither resentfulness nor belligerency, on the one hand, nor the behavior of the sympathy-seeking soldier who endeavors to prove the sincerity of his symptoms by being overly polite and cooperative, on the other, should play any part in determining the soldier's ability to perform in combat.

Subjective Criteria

Symptoms. Although what the patient tells the psychiatrist is of less importance than the objective signs, there are characteristic symptoms and tales of incidents in battle with which the psychiatrist should be familiar in order to evaluate the degree of psychic trauma in his patients. Without discussing the psychodynamics of combat neurosis, it is pertinent at this point to explain the episodic nature of the conditions under which soldiers fight and the episodic manner in which psychic battle traumas are delivered. Some of the literature on combat psychiatry leads one to suppose that battle anxiety gradually and constantly increases to a point of saturation, at which time the soldier becomes a casualty. This may be true in some instances, but the majority of soldiers do not experience a gradual rise of anxiety, but, rather, an episodic increase of the anxiety level, with intervening partial remission.

Combat soldiers manage fairly well until a close shell hit is encountered, causing nearby casualties. At this point abnormal anxiety emerges and becomes part of the soldier's burden. With another close encounter his phantasy of invulnerability is still further weakened, and the anxiety level may now become disabling. The number of traumatic episodes the soldier can bear without becoming a casualty depends on the severity of the trauma and on his personal pride, motivation, and loyalty. The anxiety state evolves when the soldier suffers a narrow escape, at a time when casualties about him are heavy, and emerges from the episode feeling that "it almost got me that time."

The intermittent nature of combat determines the manner in which the soldier develops anxiety. Units seldom attack continuously. After 3 or 4 days the company is placed in battalion reserve; after 6 or 7 days the battalion goes into regimental reserve; and after 2 or 3 weeks the regiment is moved into division reserve. During these reserve periods the soldier experiences some degree of relief from battle dangers. It is true that he is within artillery range; yet the casualties of units in reserve areas, beginning within the battalion reserve, decrease sharply as they move into division reserve. A soldier may go through many days of a campaign without having a severe psychic trauma, such as the "close shell hit, casualty-producing episodes" described. Under these conditions he seldom experiences severe battle-induced anxiety, for he still retains his phantasy of invulnerability.

It is important, therefore, for the psychiatrist to know how many combat days the soldier has experienced, in order to evaluate the severity of the psychic trauma he describes. Often he has not experienced psychic trauma at all, but is merely expressing distaste for battle. Particularly is this true of the new replacement, whose anxiety is mainly anticipatory. On the other hand, a genuine account of severe psychic battle trauma, repeated over a period of time, may indicate true disability, even in the good soldier.

Background. At this level background is of relatively little importance in considering a case. Seldom is there time to take a thorough past history, and so frequently are neurotic traits and tendencies admitted that the psychiatrist becomes aware that soldiers answer leading questions with the interpretation most useful to their situation. Certain easily elicitable facts are of course important, and mental deficiency is one such factor. Mentally deficient soldiers usually do not react to anxiety well. They have little ability to erect defense mechanisms or to adjust themselves when terrified. They cannot grasp or feel motivated by ideals—honor, pride, or loyalty to their unit. Their intellectual immaturity is often paralleled by emotional immaturity.

In a similar category are those soldiers with lifelong somatic complaints, who are often somewhat mentally deficient as well. These "poor miserable souls" have little defense against environmental anxiety thrusts, and are useless in combat. They have a lifelong habit of evasion, and it is not surprising that they become early psychiatric casualties. One learns that exhortation and persuasion are of little avail with them. They seldom present a severe clinical picture, but in the main they are unsalvageable for combat.

Motivation as used here denotes the soldier's willingness to return to combat. Those in whom motivation is poor usually inform the psychiatrist of that fact at the beginning of the interview. Those in whom it is fair do not commit themselves, but in general are lukewarm toward the idea of further combat. Good motivation is rare and lifts the spirit of the psychiatrist whenever encountered. It is a melancholy fact, however, that in soldiers who demand return to duty one must take care to rule out psychosis and severe guilt reaction.

Criteria for Disposition

In using these criteria to determine the disposition of a case, the following factors should be taken into account.

1. All signs and symptoms must be evaluated in relation to the combat-induced anxiety states. It has been pointed out that the standards applicable to the civilian type of neurosis are not relevant in judging battle reactions. The important factors in determining fitness for combat are the amount and intensity of external fear and their effect on the soldier. Little consideration need be given to background, except in mentally defective and constitutionally inadequate soldiers, who are unusually susceptible to anxiety. No doubt there are other susceptible types, but to detect them is difficult. Moreover, uncovering latent anxiety-bearing material when it cannot be adequately analyzed and treated is of little value and may be harmful. In almost all cases at this level it is best to keep psychotherapy on a superficial and environmental plane.

2. Physical fatigue produces exhaustion but not anxiety. Only fear can produce the anxiety state. Fatigue decreases resistance and in many cases permits a low level of anxiety to become disabling; that is, the threshold for the ability to handle anxiety is lowered by physical exhaustion. Since rest is the only treatment needed to eliminate fatigue, soldiers who are suffering predominantly from physical exhaustion offer the best prognosis for return to combat. Every division psychiatrist learned that during a period of offensive combat the return-to-duty rate rose when the fatigue factor became prominent in producing casualties. When anxiety is the larger component and physical fatigue a minor one, the problem is not so easily solved. No simple measure, such as rest, will remove the genuine fear of being killed or wounded. If physical fatigue played a large role in causing anxiety it would be difficult to explain why cases of extreme fatigue have so low an anxiety component, or why, on the other hand, one sees so many cases of severe anxiety without physical fatigue. In fact, one rarely sees severe anxiety reactions in men who have been in combat long enough to incur a marked degree of physical fatigue.

3. Lack of motivation is a potent factor in the cause, treatment, and recurrence of the neuropsychiatric casualty. The unwilling soldier does not want to withstand even the normal battle reaction. He will rationalize, exaggerate, indulge in self-pity, and fairly well convince himself that he is sick. If lack of motivation is the only disabling factor the psychiatrist is obligated to return the soldier to duty, even though he may later become a disciplinary problem.

4. A continuing state of tension indicates that the disabling effects of psychic battle trauma are still operative. It is the most important objective criterion in determining that the soldier not be returned to duty; for a soldier who is returned while he is still sick will be a liability to his unit or will soon be returned for further treatment. An absence of objective signs of trauma indicates that the soldier has at least recovered from the acute episode.

5. The subjective symptoms often indicate the degree of severity of the psychic trauma. Since they are subjective, they must be evaluated by the psychiatrist in terms of his knowledge of the tactical situation and other correlative and corroborative information.

These criteria are intended only as a guide. They should not be used mechanically or too rigidly. As the psychiatrist becomes experienced in handling combat psychiatric casualties he learns to use such rules almost intuitively. As a practical guide these rules may be summarized as follows:

All soldiers who show moderate to severe objective signs of psychic trauma are unfit for return to duty at the division level. If the soldier "looks bad" the prognosis for return to combat is poor. If he "looks good" (no objective signs) or "fairly good" (mild objective signs), return to duty should be considered. The decision then rests on other factors. When, for example, the patient after a rest period shows no objective signs of trauma and has a history of minimal battle trauma, a good background (negative for mental deficiency and inadequacy), and good motivation, either the case was one of pure physical exhaustion or the soldier was sent to the unit by mistake and has no psychiatric disease. If motivation is poor in such a case and the other evidences are the same, one is dealing with an unwilling soldier who is merely verbalizing the normal combat fears and sensations. If there are mild objective signs (tremor or apathy), a history of repeated battle trauma, and good background, but motivation is poor or only fair, the prognosis is poor and the soldier should be evacuated. A common type is the soldier who has few or no objective signs, a history of one traumatic event, a good background, and fair motivation. Such a soldier offers a good prognosis and should be returned to duty, even if motivation is poor. If both the background and motivation are poor the prognosis for useful combat duty is poor.

PSYCHOSOMATIC DISORDERS

Psychosomatic disorders occurring in battle may be acute or fixed. The acute type is simply the usual battle anxiety state with the presenting symptoms concentrated in some particular part of the body. The symptom is not fixed and the soldier readily admits his main difficulty to be fear. Treatment is the same as for other anxiety states. The fixed type is represented by those well-known soldiers who state in an indignant and resentful tone, "I'm not afraid of shell fire! Cure my back and I'll go up there!" or "It's my stomach, there is something wrong with it. I'm not afraid of shell fire!" Often these soldiers have been hospitalized before for the same complaints and are hostile toward the medical officer. In such cases it is important that the psychiatrist make as thorough a physical examination as possible. An explanation of the psychogenic factors involved should be given, though it is usually wasted. The psychiatrist should then proceed to give the patient the "you've got to live with it" theory, stating in effect that no serious condition is present, and that, while it is known that the patient has pain or discomfort, he will have to put up with it, since it does not impair his combat usefulness. It is best not to become embroiled in acrimonious disputes with such soldiers. In the end they should be sent firmly back to duty.

OFFICER PSYCHIATRIC CASUALTIES

There are few psychiatric casualties among officers, but their disposition is important, owing to the effect it may have on other officers and on the morale of combat troops. Poor morale is indicated when there is a marked increase in the proportion of officer casualties over the numerical ratio of officers to enlisted men in the combat troops. These officer patients are almost invariably of company grade. The stress and strain of battle lie heavily on these men, and their casualty rate is high. The clinical picture in officers differs somewhat from that in enlisted men, in that they show more depression. The feeling of failure and subsequent loss of pride and honor heavily color the anxiety state. Some officers break early in combat and clearly demonstrate that they have never been emotionally stable. They have obtained their commissions on the basis of pure ambition or vanity, with the hope that they will obtain some non-combat job and avoid the hazards of combat infantry. This type is characterized by quick failure, the absence of episodic psychic trauma, and frank admission that they cannot lead men in combat: "I cannot do that kind of work, I am good at other things."

In dealing with officers proper disposition is far more important than with enlisted men, for the officer is in a position not only to

spread panic and occasion many psychiatric casualties in his unit, but also to cause many unnecessary deaths of men under him. Consequently it is important not to return to duty officers who have more than an even chance of breaking down in battle. When the indication is clearly against the return of an officer to combat, the psychiatrist has an obligation to his division in dealing with the case. If the officer performed his combat duties satisfactorily, until he broke down under the stress of some battle episode, he properly comes under the protecting arm of the neuropsychiatrist and should be reclassified. If, on the other hand, he has never shown fitness for combat and has clearly shown that he cannot handle his job, then, regardless of his past emotional or character disturbances, it is only fair to the men who continue fighting that his failure should not be rewarded. Such an officer should be returned to duty with a letter stating that he is emotionally incompetent for the duties of a combat officer, but has no mental disease that warrants medical reclassification, and recommending administrative reclassification. That he is unsuited for combat and may become a detriment to his unit should be emphasized; otherwise he may be returned for another trial of duty where he may cause further harm.

Such a policy may cause the officer to lose his commission and may seem harsh, but it must be remembered that no one is forced to accept a commission in the infantry. When an officer has shown himself unfit for his job the psychiatrist who recommends administrative reclassification is asking, not for his punishment, but merely for the correction of an administrative error. Such a policy prevents the loss of morale among junior officers that is occasioned when such an officer is medically reclassified and thereby "rewarded." Aiding and abetting the officer who follows the plan outlined in the old refrain—"foul up, get a nice job in the rear, and get promoted"—should not be laid at the door of the division psychiatrist. The officer suffering from a severe anxiety state or other genuine illness should be promptly evacuated for treatment.

HAZARDS OF THE PSYCHIATRIST

The psychiatrist himself is likely to become weary and emotionally exhausted in combat. He sees literally hundreds of tearful, depressed, stubborn, sympathy-seeking, self-pitying soldiers. In each case a decision that may mean life or death for the soldier must be reached. Under these conditions the psychiatrist may at times lose his diagnostic sense and emotional balance. All patients then begin to look alike to him, and he may identify himself with his patients and see them as all equally deserving of evacuation; or, seeing them all as volitionally motivated, he may adopt a harsh policy, assume a severe

and caustic manner, and return to duty soldiers who are completely unfit for combat. When the psychiatrist observes himself becoming angry with his patients or figuratively crying with them, it is a good rule to stop work and see no patients for an hour or two and to force himself on returning to work to follow methodically the criteria outlined above for the disposition of cases.

THE ABSENT FROM BATTLE WITHOUT LEAVE

The increasing incidence of soldiers who illegally avoided hazardous duty focused special attention on this problem. The division psychiatrist was required to interview such offenders prior to general court-martial in order to determine the degree of mental responsibility. Such interviews afforded an opportunity to evaluate the underlying causes of this phenomenon and to make positive recommendations to units whose AWOL rate was above average for the division. This ancient method of avoiding a hazardous situation is one of the inevitable concomitants of battle. Many such offenders are not criminals. Punishment involving disgrace and imprisonment often impairs their future usefulness and happiness. Thus "justice" is as much a horror of war as are incapacitating wounds, severe battle neuroses, and the misery of the soldiers who remain in combat. Apparently the incidence of such offenses increases as the division becomes older in combat days. In the second severe combat period of one division about 250 soldiers were AWOL. During the same period there were about 4,000 battle casualties (KIA, MIA, and WIA) and 550 neuropsychiatric casualties. In view of the fact that these offenders and casualties originated from 36 infantry companies whose strength and replacements numbered about 9,000 men, it is evident that the offenders formed but a small percent of the total number of troops required to face hazardous duty.

From a study of 200 offenders, examined in the usual manner prior to general court-martial, the following conclusions were reached:

1. During a campaign the incidence of AWOL cases increases with the number of offensive combat days. Absence without leave is not an immediate result of intense battle trauma, but is the product of cumulative days of combat.

2. About two-thirds of the offenses were committed from relatively safe areas, such as reserve positions, casual companies, replacement centers, and hospitals.

3. The majority of offenders were men who had been in the unit for some time.

4. About one-third of the offenders had been recently hospitalized for wounds or illness. About 10 percent had been treated for a neuropsychiatric illness since they had come overseas.

5. Age and intelligence played no significant role in this phenomenon.

6. While the offenders were almost unanimous in stating that they were motivated by nervousness or fear of combat, only 25 percent had requested medical evacuation shortly before the offense. These requests had been refused.

7. Twenty-five percent were found to have a disabling mental illness that made it difficult for them to control their behavior and 10 percent were classified as psychopaths. The rest could not be considered abnormal from the psychiatric point of view.

8. No definite correlation between the psychiatric and AWOL rates could be demonstrated by analysis in all three regiments. The regiment with the highest psychiatric rate had the highest AWOL rate, but the regiment with the lowest psychiatric rate had the second highest AWOL rate. A similar study of infantry battalions disclosed that the battalion with the highest AWOL rate had three of the five AWOL officers of the division; and the second highest AWOL rate occurred in a battalion maintaining the lowest psychiatric rate, and thus the best "medical discipline."

9. Both the psychiatric and the AWOL rates were strongly affected by morale factors, but it was far more important in the case of absence without leave. Most psychiatric patients were unable to endure the terrors of combat, whereas most AWOL offenders were unwilling to endure the hardships of combat. The occurrence in a unit of AWOL officers was an important factor in raising the incidence among soldiers of the unit. A too rigid medical discipline with respect to the evacuation of psychiatric casualties may also be a factor in increasing the AWOL rate.

Absence without leave presents another source of manpower loss through functional causes. It is the duty of the psychiatrist to study the problem in his division and to make positive efforts and recommendations to maintain a low incidence of such offenses.

THE POSTCOMBAT PERIOD

In the postcombat period the division units leave the combat zone tired and worn with mingled sensations of relief and fatigue. There is a general letdown. Everyone seeks some sort of relaxation or recreation, including alcoholic oblivion. The division psychiatrist, however, has work to do. The records and statistics of the combat period must be compiled. The psychiatrist must ever seek to improve the facilities of his unit and to make good the shortcomings revealed in the combat period. He must use the cold figures of the fighting period to prove the need for better equipment and personnel. Even

if he is disposed to neglect such work, he cannot escape the long line of men awaiting examination on charges of illegally avoiding combat.

ESTIMATING THE PSYCHOGENIC CASUALTIES OF BATTLE

To arrive at some estimate of the manpower loss caused by the psychogenic component of injuries and disease, a diagrammatic representation of the correlation of the wound rate and casualties from other causes was attempted. It appears that most battle casualties of psychogenic origin occur at a time when other battle casualties are produced. One must envision a shell exploding among or near a group of men. Some are killed, some are wounded, one or two are stunned and awaken trembling and tearful, and one may jump for safety and sprain an ankle or bruise some part of the body. Another soldier may think this is a good time to have that "cold" taken care of, and still another may decide he does not "feel right generally" and there must be something wrong with him because his heart is pounding, his head aches, and he is tired out.

Figure 2 represents the casualties of the entire 85th Infantry Division (15,000 average strength, all combat troops except 3,000 to 4,000 service troops) in active combat for about 46 days. A precombat period of 10 days is shown. The battle wound rate does not include MIA (missing in action) or KIA (killed in action). LIA (lightly injured in action) refers to those walking patients who had such emergency medical tag diagnoses as concussion, contusion, or sprain. These were considered battle casualties by the MRU (machine records unit), but in none was there an element of wound by a missile. The most striking feature shown is the close similarity between the curves of LIA and the psychiatric rate, which are almost twins in their rise and fall. These curves retain their similarity in relation to the smaller units. In actual practice these patients were often labeled "exhaustion" as a secondary diagnosis, and many LIA cases when returned to duty from hospitals were promptly re-evacuated as "exhaustion." The disease rate showed a steady rise as combat progressed, with a decline in the later stages of combat parallel with the battle wound rate. It is difficult to arrive at a true correlation of the disease rate with battle casualties, since many elements of the division are at rest while others are in action. The solid line (noncombat evacuation curve) follows the wound curve and illustrates graphically the relationship of combat and noncombat casualties that were evacuated. The longer a unit was in action the greater was the ratio of noncombat to combat casualties.

Figures 3, 4, and 5 represent the three infantry regiments of the 85th Division. The LIA and NP (neuropsychiatric) curves are similar in the three graphs. The disease rate followed the same course

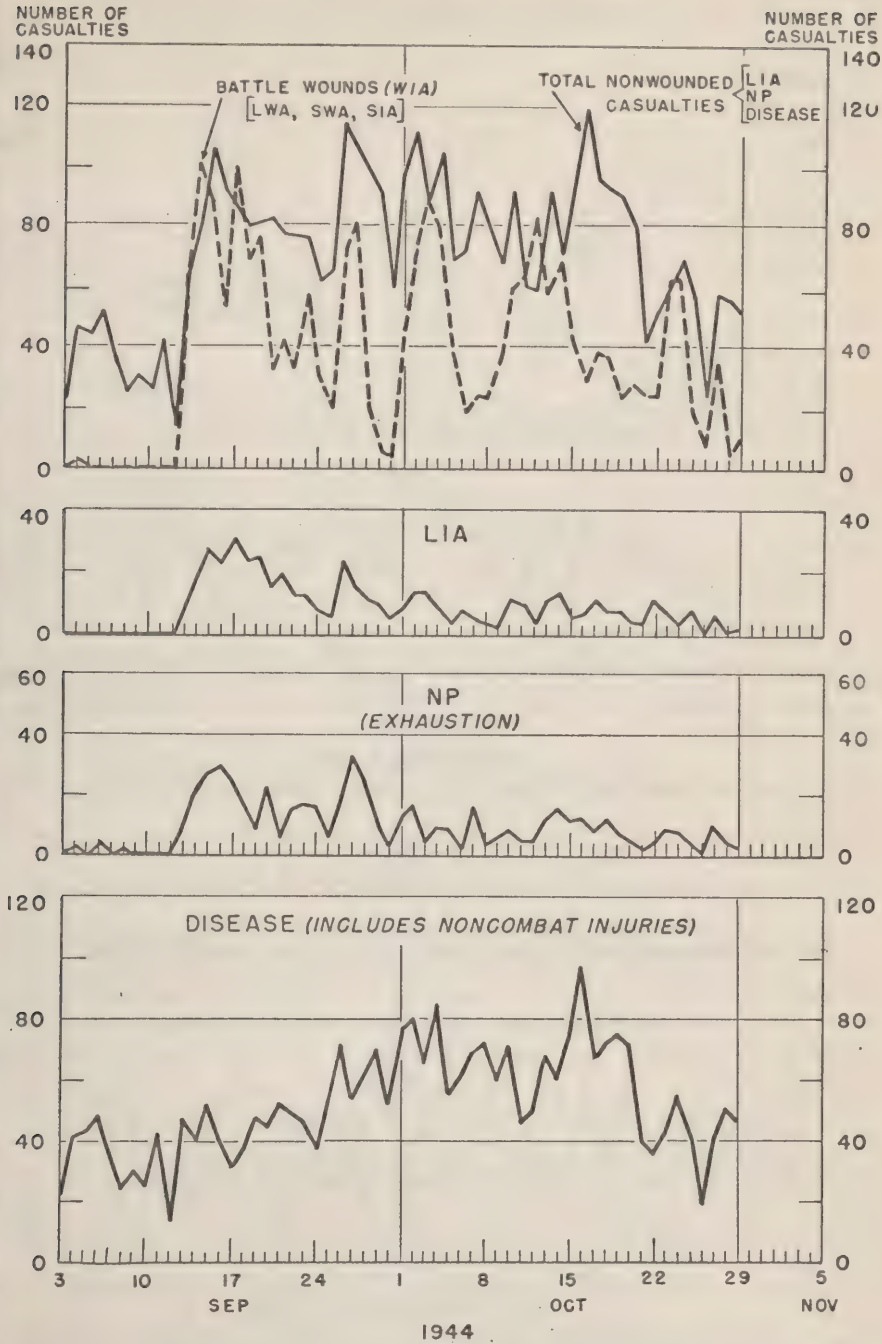


FIGURE 2. Battle casualties and disease, 85th Infantry Division, from 3 September to 5 November 1944.

as the psychiatric rate. When the psychiatric rate was high the disease rate increased and vice versa.

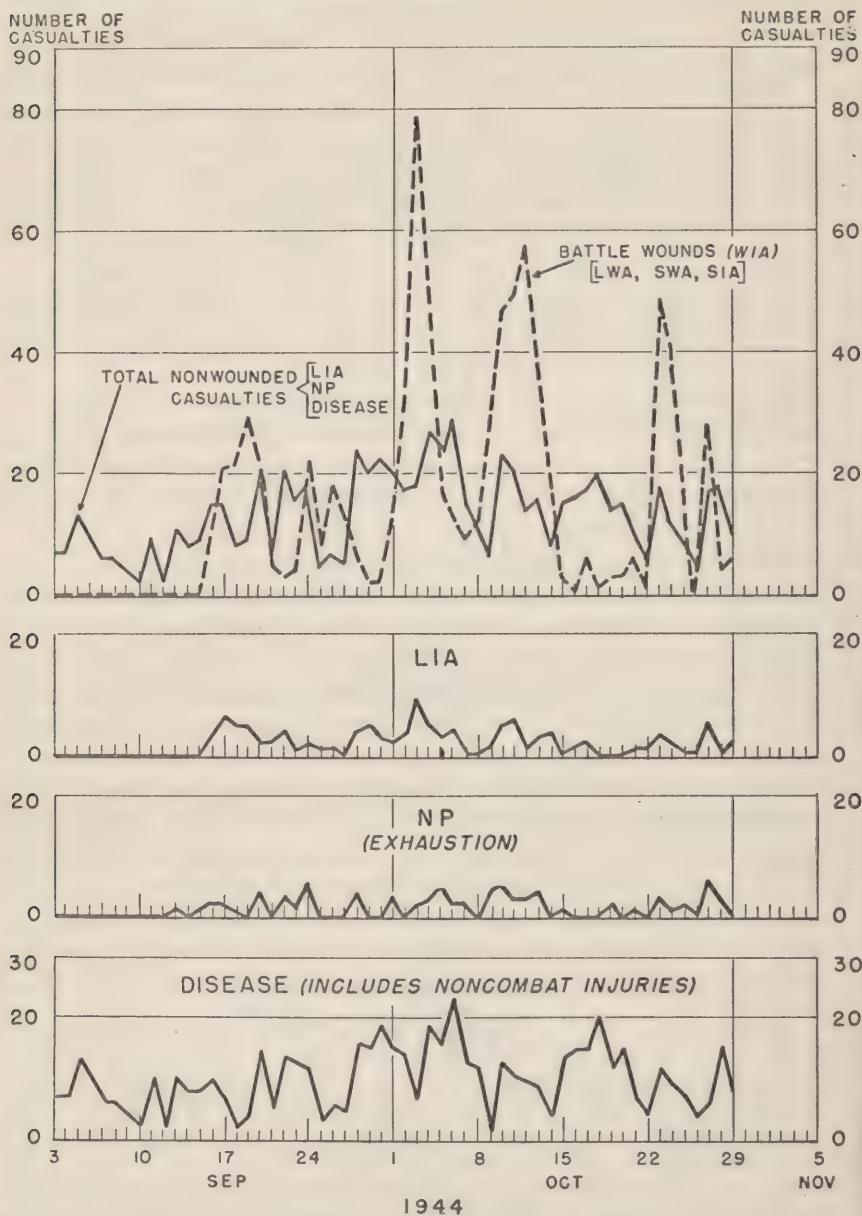


FIGURE 3. Battle casualties and disease, 337th Infantry Regiment, from 3 September to 5 November 1944.

Figure 3 shows a low psychiatric, LIA, and disease rate. Consequently, the noncombat evacuation curve for this regiment was well

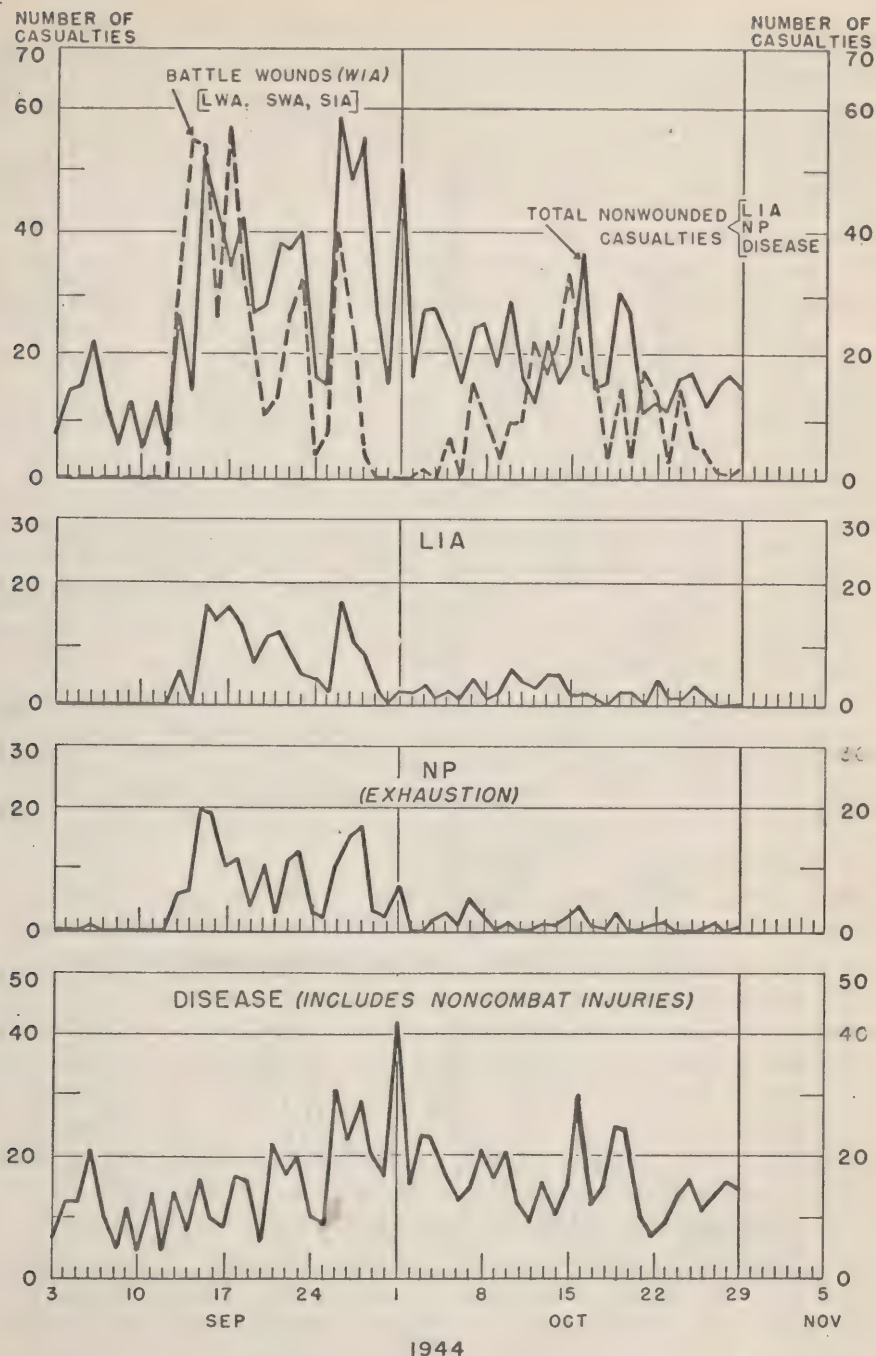


FIGURE 4. Battle casualties and disease, 338th Infantry Regiment, from 3 September to 5 November 1944.

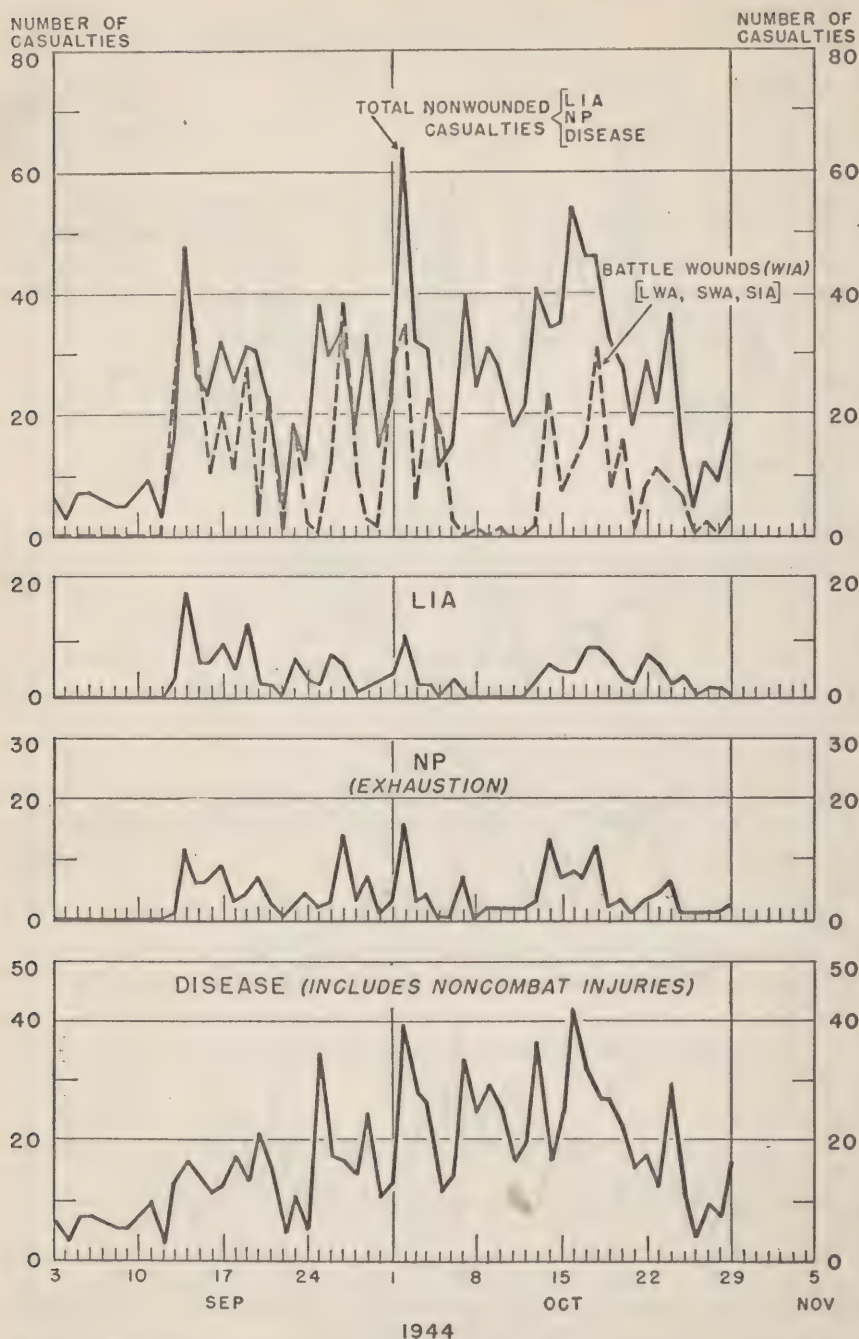


FIGURE 5. Battle casualties and disease, 339th Infantry Regiment, from 3 September to 5 November 1944.

below the battle casualty peaks. This unit conserved its fighting strength far better than the other two regiments. This regiment was well known for its high morale and good medical discipline, and the regimental surgeon had instituted a well-supervised intraregimental treatment of mild psychiatric, medical, and surgical cases. None of the successfully treated patients are represented on this graph, for the curves represent only those that reached the clearing company. The treated patients were, however, never lost to the regiment for more than a few days, and for practical purposes the fighting strength of the unit was preserved.

Figure 4 illustrates an interesting phenomenon. For the first three weeks of the campaign there was a marked increase in noncombat casualties, in which all three constituents (LIA, NP, and other non-wounded casualties) participated. Then something occurred to bring about a change; the three noncombat curves assumed lower levels, resembling those of figure 3, with a consequent decrease in the non-combat evacuation curve. It is known that this regiment shortly before the time of this change was assigned a new surgeon who obtained preliminary training under the regimental surgeon whose results are demonstrated in figure 7, and who followed his policies and methods.

Figure 5 shows the marked increase in the noncombat evacuation curve as the campaign progressed, and the coincidental rise of the rates for disease and battle wounds. The sick casualties were often evacuated one day later than the battle casualties.

In figure 6, representing an infantry battalion, the correlation between the rates for battle wounds and disease is more clearly seen. Again the LIA and psychiatric rates were almost identical. In this battalion, the noncombat evacuation rate was high in the initial phase. It should be expected that this disproportion would increase, since nothing was done about the situation, and this increase did occur. That this kind of a curve coincided with a loss of morale is indicated by the fact that the commanding officer was relieved later in the campaign.

Figure 7 illustrates the situation in a battalion in which the disease rate was fairly high and there was a gradual increase in the noncombat evacuation curve, which at the close of the campaign was high in proportion to the battle wound rate. An interesting phenomenon may be observed here. In relation to the initial wound peak the LIA rate shows a striking rise, while the psychiatric curve is flat and the disease rate is only slightly elevated. One may confidently infer that many of the patients evacuated as LIA were actually psychiatric casualties, since it is improbable that with so many wounds there should not be more combat neuroses.

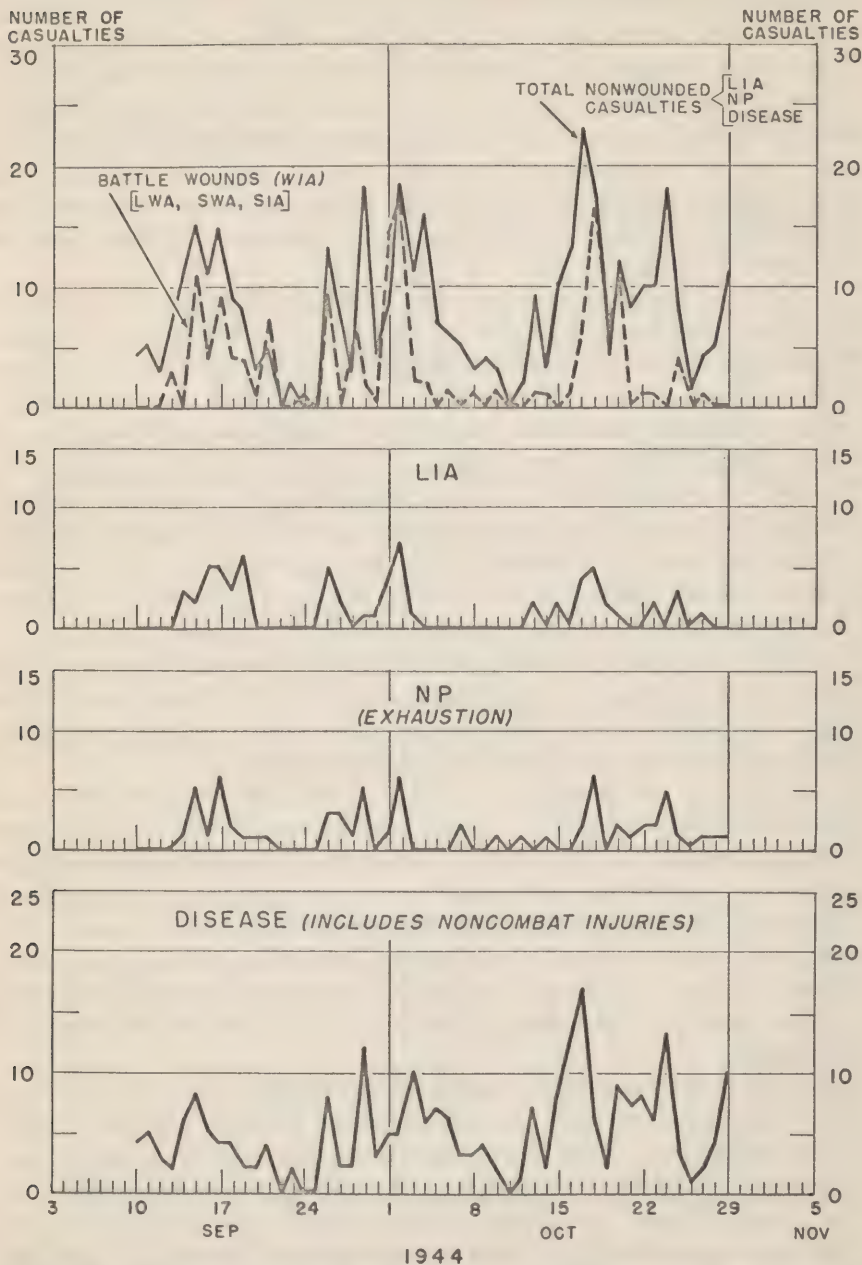


FIGURE 6. Battle casualties and disease, — Bn., — Inf. Reg., 85th Division, from 3 September to 5 November 1944.

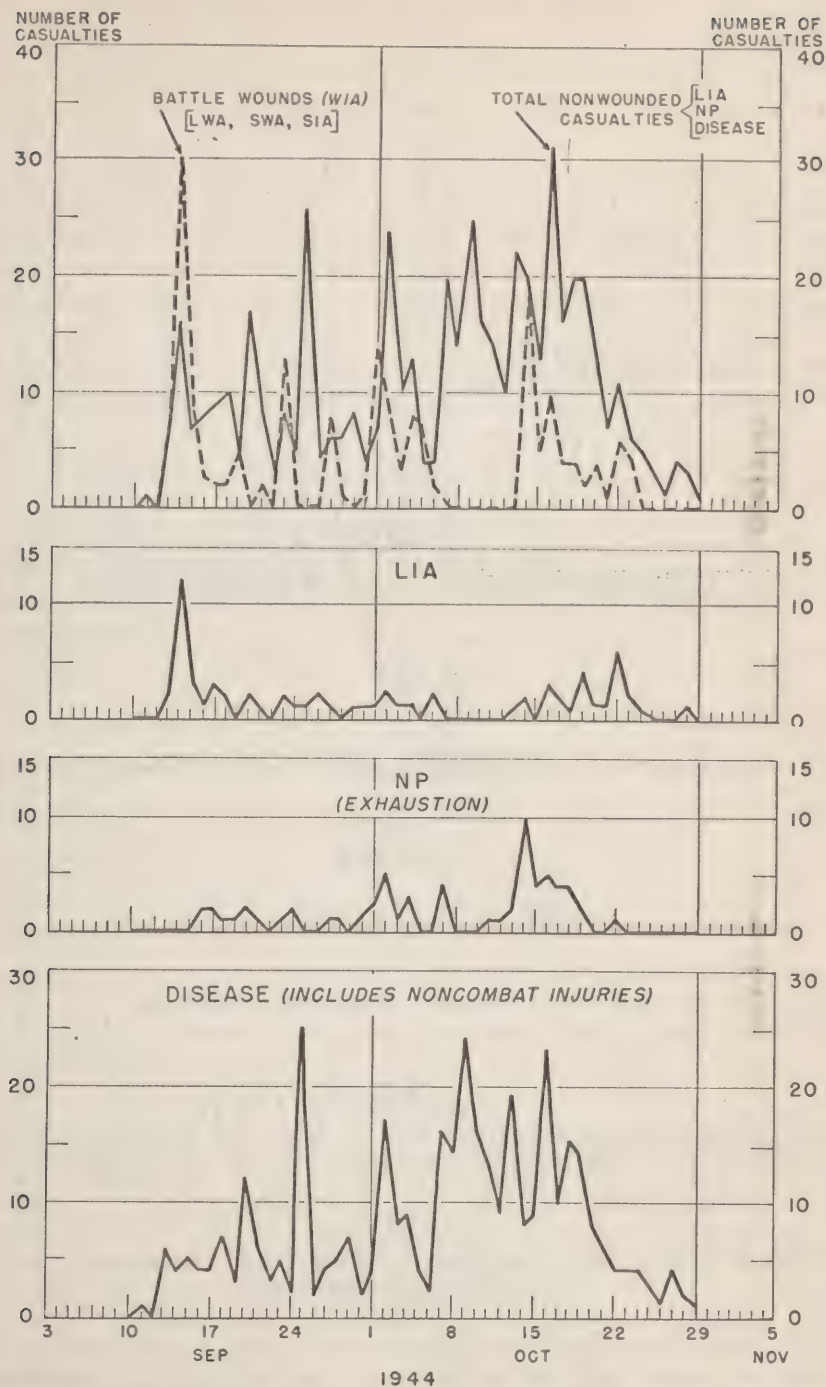


FIGURE 7. Battle casualties and disease, 2d Bn., 339th Inf. Regiment, from 3 September to 5 November 1944.

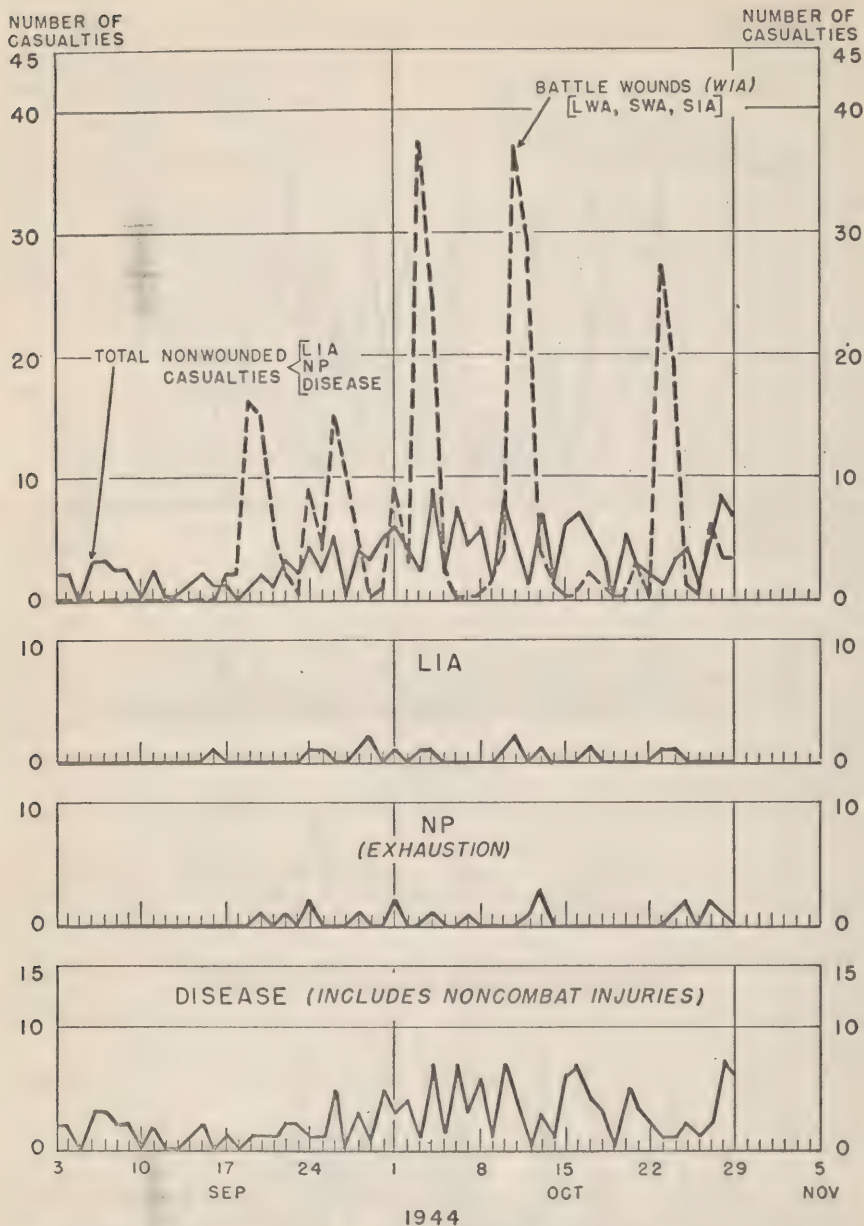


FIGURE 8. Battle casualties and disease, 2d Bn., 337th Inf. Regiment, from 3 September to 5 November 1944.

Figure 8 illustrates the situation in a battalion in which wound casualties were high, while the noncombat evacuation curves were fairly low. It is not surprising, therefore, to find an increased num-

ber of self-inflicted wounds and absences without leave in this battalion as compared to the number in other battalions of the same regiment. Such a situation illustrates the results of a too rigid medical discipline. This battalion, one of those represented in figure 3 was, however, said to have done very well in its tactical missions.

These graphs demonstrate (1) that there are psychogenic factors in all these curves,¹¹ (2) a need for investigation of LIA casualties, which probably call for a special method of handling and therapy, (3) that there is a large loss of manpower from psychogenic causes other than avowed psychiatric illnesses. When the noncombat evacuation curve exceeds the wound rate the cause should be investigated. The rise may be caused by poor morale or incompetent leadership, or it may be the fault of a battalion surgeon who has opened wide the door of medical escape. Graphs of this kind show where trouble exists, but they do not necessarily indicate the cause.

¹¹ It seems likely that the LIA curve, so similar to the psychiatric curve is mainly functional. The disease rate, which shows some correlation with the wound curve, also has a strong functional component, latent when the soldier is evacuated to the hospital, but revealed during hospitalization or when discharge is contemplated by persistence of the presenting symptomatology or by the development of overt psychiatric complaints and manifestations.



Psychiatry at the Army Level

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This section is based on experience in army psychiatric treatment centers with both the Fifth Army in Italy and the Seventh Army in France and describes the duties and functions of the army psychiatrist, the organization of army psychiatric centers, and the appearance, treatment, and disposition of patients seen at these centers.

THE ARMY PSYCHIATRIST

Military psychiatry is more than a medical problem. It involves important aspects of law and morale as well. Accordingly, it is advisable to have on the staff of the army surgeon a medical officer familiar with all phases of the task. In addition to adequate civilian psychiatric training and experience, the army psychiatrist must possess a detailed knowledge of the special problems of military psychiatry and the variations in treatment and attitude which combat imposes on the practice of his specialty. The army psychiatrist, although he devotes a large part of his time to the care of psychiatric casualties, has many administrative and consultative functions as well. His problem concerns echelons both forward and to the rear of the army center. He should be familiar with the psychiatric work carried on in all these installations, preferably through previous tours of duty in their hospitals. As part of his staff functions the army psychiatrist advises the battalion surgeon of the policies to be followed with psychiatric patients and prepares written directives and informative circulars on the subject for distribution to all army medical officers. He maintains liaison with the personnel section at army headquarters with reference to reinforcements and reassignments, and, in consultation with the judge advocate, formulates policies concerning medicolegal and disciplinary problems.

It is his duty also to supervise the operation of the army psychiatric treatment centers, to provide psychiatrically trained medical officers for such centers, and to further the training of medical officers at these installations. He should keep in close touch with the division psychiatrists and supervise and assist them in their work. It is particularly important to consult with psychiatrists from divisions newly

committed to a combat zone and instruct them in the organization of efficient intradivisional psychiatric programs and in the special problems that may be expected to arise. To insure correct disposition of patients with psychosomatic and psychiatric complaints admitted to the army evacuation hospitals, close contact should be maintained with the hospitals. At intervals the psychiatrist should visit base section hospitals in order to evaluate the earlier care given patients in the army psychiatric centers and to check on errors of diagnosis or treatment.

The psychiatrist must maintain adequate records of the incidence of psychiatric casualties in all army units. Comparative figures of battle casualties, psychiatric casualties, disease, and injury give vital information concerning the state of morale in combat troops, the quality of leadership, and the adequacy of screening of psychiatric casualties by unit medical officers. The report form used in the Fifth and Seventh armies for psychiatric casualties in divisions furnished these data. The figures on duty returns from division clearing stations provided a semimonthly check on the efficacy of the psychiatric policies of each division. The value of these reports and the use made of them to improve efficiency within the division are discussed in the preceding section. From these reports the army psychiatrist may obtain an excellent conception of the condition of the troops, which will serve as a basis for the initiation of needed corrective measures.

THE ARMY PSYCHIATRIC TREATMENT CENTER

With well-organized division psychiatric programs the need for a separate army treatment center may well be questioned. It was, however, found essential because: (1) the treatment of psychiatric casualties and those of other types as well is facilitated by such separation, for emotional disorders readily become contagious in hospitalized combat troops and nonpsychiatric patients may become "infected"; (2) the treatment of psychiatric patients is more effective when care is centralized and when hospital atmosphere is minimized; (3) it provides a place for psychiatric patients who cannot be held in division clearing stations that are overcrowded or must evacuate patients because the division is moving; (4) it provides a means for further screening and thus insures that a maximum number of potentially useful soldiers will be retained for service; (5) it provides a meeting place where army and division psychiatrists can discuss mutual problems; and, (6) it furnishes excellent facilities for the instruction and indoctrination of medical officers in the special methods and principles of combat psychiatry.

HISTORY

Organization. In the Fifth Army the Second Platoon of the 601st Clearing Company, 161st Medical Battalion (Sep.), was designated as the psychiatric treatment center. The number of enlisted men provided by the normal T/O was approximately doubled by attaching additional personnel from other units in the battalion. In order to provide adequate facilities to care for 200 patients, allowing for expansion to accommodate 250, additional equipment was added over and above the normal T/E. Four psychiatrists from base hospitals were attached to handle the professional work. The administration of the hospital was left entirely to the assigned medical and medical administrative, or other personnel of the platoon. Additional psychiatrists were added from time to time when an increased case load made it necessary to do so. On the Anzio beachhead the policy of separate treatment of psychiatric casualties was accomplished by designating one evacuation hospital as the receiving station for all such cases. A ward with a capacity of 60 to 80 patients was set aside for this purpose. The service was staffed by the psychiatrist assigned to the hospital and attached psychiatrists from the main Fifth Army center. This unit continued to operate until the two fronts were again joined during the offensive of May 1944, when all patients were again treated in the original center. In the Seventh Army the first center was organized as in the Fifth Army, with the Second Platoon, 616th Medical Clearing Company, so used. When a second center became necessary both platoons of the 682d Medical Clearing Company were used. Both in the Fifth and the Seventh Armies the treatment centers soon became the nuclei for all psychiatric activities. Clinics were instituted to teach the principles and methods of diagnosing and treating combat neuroses to medical officers from divisions and evacuation hospitals. Division psychiatrists maintained close touch with the professional staff of the center and aided greatly in formulating and improving treatment policies. The work also helped to stimulate interest in psychiatry in army medical officers.

Enlisted personnel. Enlisted personnel of the Medical Department who were entirely unskilled in the handling of psychiatric patients were trained by means of short preliminary talks, continued after operations began by suggestions related to current ward patients. Ward attendants were told that psychiatric patients were to be regarded as sick, not "yellow," and the dynamics of the disturbance were explained to them. They were shown the need for a sympathetic but firm attitude, and were instructed to foster a spirit of optimism on the wards, stress ultimate return to duty, discourage undisciplined outbursts of emotion or defeatist trends, and report any unusual be-

havior or symptoms to the ward officer at once. Many of our ward attendants developed great skill in handling these often difficult patients, and, owing to their close contact with the patients, were often able to furnish valuable information to the ward officers.

Equipment. Patients were housed in tents throughout the Italian campaign, and, until extreme cold in the winter of 1944-45 forced the use of buildings, in southern France as well. Every effort was made to minimize hospital atmosphere. The installation was often spoken of as a "rest center" and this attitude was fostered. There were no nurses. No sheets, pillows, pillowcases, or pajamas were issued. The men slept between blankets on Army cots. Tents and buildings were adequately heated in winter. Bathing facilities, consisting of portable shower units, were provided when available. A supply of fresh clothing was always kept on hand to replace torn, soiled, wet, and muddy garments. The field soldier, accustomed to extreme discomfort at the front, found these arrangements adequate. It was felt that hospital accoutrements usual at home or in base hospitals were unnecessary and would tend to spoil this type of casualty.

Location. These installations were placed on the same level as the army evacuation hospitals, from 5 to 20 miles from the front, and moved forward with the evacuation hospitals.

PSYCHIATRIC CASES SEEN AT ARMY CENTERS

Sources of cases. When the Fifth Army Center was first organized there were no psychiatric facilities and little or no psychiatric treatment at division level, and patients were therefore received directly from division clearing stations. Although some screening was done by battalion surgeons, many mild cases were then received at the center which in a later period would have been held and treated by division psychiatrists. Patients from corps or army troops were sent directly from unit dispensaries or aid stations. Evacuation hospital commanders were instructed to send patients with psychiatric disorders to the center on admission. If soldiers arrived at the hospital with a nonpsychiatric diagnosis and were later shown to have a psychiatric ailment, they were to be transferred to the center, but, since such cases had been treated in the evacuation hospitals for many months under the supervision of their own psychiatrists, a fair number, especially of soldiers with psychosomatic symptoms, were not transferred to the center. When psychiatrists were assigned to the divisions and facilities for holding and treating such casualties became available to them, the nature of the cases received at the army psychiatric center changed and mild cases were seen less commonly. In the Seventh Army only one of the evacuation hospitals that par-

ticipated in the invasion of southern France had an assigned psychiatrist. In this army, circulars issued at the outset directed that all patients whose main problem was psychiatric be screened through the psychiatric center. The army psychiatrist visited the chiefs of medicine of each evacuation hospital to discuss the types of patients to be disposed of in this way. Thus patients with psychosomatic complaints were made subject to psychiatric evaluation and screening after the presence of organic disease had been ruled out by preliminary examination in the hospitals. A check made on patients evacuated from army centers proved that few men were lost to the Seventh Army by improper treatment or disposition. Evacuation hospitals cooperated in this program and welcomed the freeing of their beds and personnel for other casualties.

Types of patients. Table I shows the incidence by diagnosis of conditions seen in Seventh Army centers from 15 August 1944 to 1 January 1945.

TABLE I

Incidence of psychiatric disorders in percent

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|---|------|
| <i>Psychoneurosis</i> ----- | 89.0 |
| Anxiety state----- (82.1) | |
| Anxiety hysteria----- (0.4) | |
| Conversion hysteria----- (1.5) | |
| Reactive depression----- (1.1) | |
| Others----- (3.9) | |
| <i>Psychosis</i> ----- | 1.5 |
| Dementia praecox----- (0.57) | |
| Manic-depressive----- (0.07) | |
| Others----- (0.86) | |
| <i>Constitutional psychopathic state</i> ----- | 0.9 |
| <i>Mental deficiency</i> ----- | 0.9 |
| <i>Other psychiatric disease</i> (includes "No disease")----- | 4.5 |
| <i>Organic neurologic disease</i> ----- | 3.1 |
| Cerebral concussion----- (0.7) | |
| Others----- (2.4) | |

The data show that, in this theater at least, the anxiety state was the most prevalent psychiatric disorder of the combat soldier in World War II. The current diagnostic fashion may account in part for the high incidence of this disturbance. Major psychoses, constitutional psychopathic states, and mental deficiency were rarely encountered, since most of these defects had been screened from combat units earlier. The category "other psychiatric disease" included patients with no psychiatric disorder—the unwilling or poorly motivated soldiers whose symptoms were considered largely volitional. Few patients with concussion were admitted to the centers, because it was army policy to treat such patients in evacuation hospitals, where trained neuro-

surgeons and facilities were at hand to deal with intracranial hemorrhages and other cerebral injuries that often complicate this type of trauma. Usually the centers received only patients with mild cerebral concussion in which there was a large overlay of neurosis.

Appearance and behavior of patients. Few observations of combat neuroses shortly after their onset were recorded before World War II. Most of the descriptions of combat neuroses came from base section hospitals, or even veterans' hospitals, and dealt with a group whose symptoms were chronic, fixed, and often intractable. Our experience indicates that the combat-induced neurosis is often a progressive disorder that becomes increasingly severe, fixed, and difficult to treat as the soldier is evacuated rearward. It appears that even the soldier whose symptoms are severe enough to preclude further combat benefits greatly from early treatment.

Medical officers often have the mistaken idea that dramatic or violent behavior is usual in soldiers treated at the army level. In general, striking symptomatology was rare in our patients. Five to 10 percent of our patients showed mild tremor or startle patterns at this stage. Not more than 3 percent had severe terror states or other violent manifestations. In the average patient marked fatigue, apathy, and lack of facial expression were the outstanding features on admission. Questions were answered in monosyllables, in a dull, toneless voice. The men sat on benches or on the ground, supported their heads in their hands, and, without previous sedation, often fell asleep sitting, or even standing, as soon as they were left alone. In soldiers who came to us before division psychiatric treatment had been established, the unwashed hands and unshaven faces, the lackluster eyes, the soiled, torn, and often wet and muddy clothing, accentuated their "beat-up" appearance.

Most of these soldiers displayed marked symptoms only under actual combat conditions. On seeing them at the centers lay observers sometimes doubted that they were ill at all. Noise sensitivity was not an important symptom at this stage. When present it was highly specific to gunfire or other explosions. Marked intolerance to nonspecific noises, so frequent in base section hospital patients from Tunisia, was rare in this group. Extreme noise sensitivity was unusual even at Anzio, where the hospital was within enemy artillery range surrounded by the constant noise of our own artillery and antiaircraft batteries, with enemy shells screaming overhead and bursting nearby and occasionally even in the hospital area, and where night air raids were frequent. During air raids a few patients left the ward to seek cover in nearby ditches, but the others showed little increase in symptoms. After the first 2 or 3 days, during which patients were often heavily sedated, new symptoms appeared and progressed rapidly in

severity. The will to return to combat decreased with each succeeding day, discomfort from minor illness or injury was exaggerated, and without vigorous treatment the trend toward invalidism and dependency grew. Increasing gain was derived from illness, which became more fixed as the need for self-justification rose. Early treatment was therefore essential, for without it the soldier was inevitably lost for combat, and rehabilitation for even limited service became difficult.

Description of Patients

Severe anxiety states. Certain clinical manifestations, mostly variants of the anxiety state, were seen repeatedly in army center patients. One of the most interesting examples was the violent, disoriented soldier whose behavior was at least temporarily psychotic. Because of the complete loss of contact with reality, the hallucinations and delusions, and the ultimately favorable outcome, we designated these reactions "pseudopsychotic." Case 12 is typical.

CASE 12. A 19-year-old rifleman with only a few weeks of combat service was admitted to the Fifth Army Center in a completely disoriented state. He had been found crawling along a road near an aid station. At times he attempted to dig himself in with his fingernails. He was so violent that heavy sedation with intravenous barbiturates was required to control him sufficiently for evacuation. He was hallucinated on arrival at the center. He believed himself still in battle and behaved accordingly. With expressions of terror he cried to his friends to look out for shells. Often he attempted to flee. It was apparent that some of his confusion was the result of repeated heavy sedation, and further drugs were therefore omitted. It was impossible to establish contact with him. He thought himself under fire, screamed, and had to be restrained from running away. Occasionally enough contact could be established to convince him that he was in a hospital, but such periods were short and his violent behavior soon recurred. He was so disturbing to other patients that he was moved to a separate tent, and a ward attendant was kept with him constantly. The attendant was urged to make every effort to reassure the patient and orient him to his surroundings. After 24 hours it was possible with effort to establish contact with him, but conversation with him was repeatedly interrupted by renewed hallucinations, attempts to flee, or terrified questions about when he was to return to combat.

The following story was finally obtained. He had been in a group that was surrounded by the enemy and lay under heavy fire for many hours. Many of his friends were killed or wounded. He recalled that he had escaped by crawling away, but could not say how he had reached the aid station. Further questioning brought out that he had always been close to and dependent on his mother. Some of his dependence had been transferred to the corporal in charge of his squad. He expressed great distrust of medical officers and said that he had been deceived by a line officer who had sent him to the front after promising not to do so. He found it hard to believe that this deception would not be repeated. He became dependent on the attendant who had been with him for several days and often turned to him for reassurance during the interview. He gave the impression of marked regression and behaved like a severely frightened child. At times he burst into tears and clung to the attendant. Again he

smiled in a childish manner. He continued to improve slowly and was eventually evacuated to the rear.

This type of severe reaction occurred almost exclusively in soldiers with past histories of marked inadequacy, dependency, or disabling neurotic symptoms. Many of them broke after brief exposure to combat, usually shortly after their unit had been committed in heavy action. Usually the onset was acute and sudden, and followed some severe psychic trauma. The reaction seemed to be a severe and continued panic state in which the patient remained "fixed" in the combat situation. Even after hospitalization this panic reaction continued in response to the content of the soldier's delusions and illusions or hallucinations. Since in such patients heavy sedation was necessary in division medical installations to facilitate evacuation, it is possible that some of the confusion and disorientation observed in army centers was secondary to oversedation. The general behavior of these patients, however, was not very different when little or no sedation had been used. The chief problem was to re-establish contact and orientation. To do so required a different technique from that used to recover amnesic material in the less severe anxiety states; namely, the use of barbiturate narcosis, under which the patient is encouraged to relive the traumatic experience in order to release tension and recover forgotten material. In the acute stages of pseudopsychotic reactions we found intravenous barbiturates of no value in establishing contact or influencing symptoms. Temporary sleep was produced, but no lasting improvement followed.

In these patients sedation should be omitted. The patient should be segregated under the supervision of an experienced attendant, who should make continued efforts to reassure and reorient the patient and establish contact with him. At best, treatment of such patients is a difficult problem in army installations, and they should be evacuated to the nearest base section hospital as rapidly as possible. These highly dramatic manifestations appeared in less than 3 percent of total admissions. All degrees of severity are seen in anxiety states, and no useful purpose is served by subdividing the group into separate diagnostic categories. In some patients marked terror reactions are encountered. Such patients show excessive startle patterns in response to slight stimuli. One such soldier, very confused, answered all questions with a stereotyped reply: "It was too noisy." When his pupils were examined with a light he jumped from the cot and bolted from the tent. In spite of reassurance and explanation of the purpose of intravenous barbiturate narcosis, all attempts to use the treatment were frustrated by his anxious, tearful protests. The sound of a passing truck caused another patient to dive into a coal box.

This man insisted on wearing his helmet in bed because he thought he heard shells exploding nearby. Another soldier sat and stared blankly. He slowly moved his head from side to side and muttered repeatedly: "Shells, tanks, captain killed." Such patients often imagine that they hear shells exploding, and may warn others of the danger. Others show catatonic behavior, with immobility, rigidity, masklike faces, and mutism. Inexperienced medical officers sometimes confused these manifestations with true Parkinsonian states, especially when there was an associated tremor resembling the "pill-rolling" type. Such behavior gives the impression of uncontrolled, catastrophic reaction to fright, varying on minimal stimuli from wild, impulsive flight to "freezing," or primitive protective withdrawal, with stupor, catatonia, or mutism.

Moderate and mild anxiety states. By far the greatest proportion of our cases fell into the category of moderate anxiety states. The stories and appearance of these patients were repeated hundreds of times with monotonous regularity. The following cases illustrate typical reactions.

CASE 13. An infantry soldier who had been in combat for 5½ months was sent to the Center because of recurrent nervous symptoms. He had first noted confusion under shell fire 2 months before. He had recovered without having to leave his unit. On the day before he entered the Center many men were killed or wounded near him during a heavy barrage. Finally he could no longer "see or hear." He wandered around and found himself in a hole with his lieutenant. He was sent back to the company command post for the night and returned to the line in the morning. He was still very shaky and was, therefore, evacuated. At the Center he complained of headache, dizziness, tinnitus, insomnia, urinary frequency, and tremor. He had bitten his fingernails to the quick. On the ward talk about war upset him greatly. He was troubled by noise and wept at the slightest provocation. On examination he was apathetic and showed a coarse tremor of the hands. These symptoms continued, and he was sent to a base section hospital.

CASE 14. An infantry private had been in combat for 4 months, during 6 consecutive weeks of which he had been on the line without relief. About a month before admission he began to get shaky during shelling and when other men were killed. On the morning of the day he came to the hospital a barrage kept up for 2 hours. About noon the men were briefed for an attack. Just as the officer completed his instructions "all hell broke loose." Two officers, a close friend of the patient, and several other enlisted men were killed. The patient became shaky and nervous and did not know what to do. They had been ordered to hold their position, but he could stand it no more. He stood and "just looked around" until someone told him to go to the aid station. Even then he could not make up his mind, and another patient finally helped him to the aid station. Here he was given a sedative and evacuated to the rear. On arrival at the Center he was still quite shaky, but there was no amnesia and he had good insight into his condition. An interesting point in his family history was that he had one brother who had never been able to hold a responsible job and who was rejected for military duty because of "nervousness." Rest,

together with discussion of his problem, restored his self-confidence, and he returned to combat after 7 days.

The mode of onset of these disturbances is discussed in the sections on "The Battalion Surgeon as Psychiatrist" and "Psychiatry at the Division Level." It was common to find a slow, episodic increase of anxiety over a period of time, which culminated in a "break" after some severe psychic trauma. About 20 percent of such patients seen in the Center gave histories of civilian neuroses severe enough to cause them to consult a doctor. The family background was often poor. Although most men with histories of previous inadequacy "broke" relatively early in combat, a large number carried on in severe combat for many months before becoming incapacitated for psychiatric reasons. We found it necessary to modify our conceptions of the potential combat capacity of such apparently predisposed patients. Those who were severely predisposed usually developed severe and intractable symptoms as soon as a disabling exacerbation was produced in combat.

The most common complaints in our patients were anxiety, apprehension, mild depression, emotional lability, headache, dizziness, tinnitus, loss of appetite, urinary frequency, insomnia, and battle dreams. Waking battle "images" disturbed occasional patients in this group. On examination the outstanding signs were tension, tremor, mild apathy, and weeping. Guilt feelings over leaving friends were common. Such feelings led to the need for self-justification and probably played a large part in the increase in symptoms after the first few days. Many of these men strove desperately to convince us and themselves that somatic symptoms were caused by injury or organic disease. In response to their sense of guilt some soldiers insisted on returning to duty, even when they had severe tension and other unrelieved symptoms. If they were returned to combat it was almost invariably necessary to re-evacuate them several days later.

Under the stress of increasing tension at the front a few soldiers resorted to alcohol. One soldier who had been a litter bearer in combat for 6 months found it possible to continue only by means of an increasing daily consumption of alcohol. In others alcoholism appeared for the first time in periods when the division was out of the line or in training periods between campaigns. In one group of medical soldiers the use of morphine followed the onset of anxiety at the front. These men gave no history of previous addiction to drugs or alcohol, nor did they manifest the usual personality traits associated with these disorders in civil life. They used drugs or alcohol to alleviate intolerable anxiety. Nothing is known of the ultimate outcome in such patients, but it is possible that the relief from tension and proper treatment of the underlying anxiety might remove this abnormal need for alcohol or drugs.

The "old sergeant syndrome" represents a chronic moderate anxiety state. At the army centers these men behaved quite differently from most patients. Pride prevented them from losing control of their emotions, and except for apathy, loss of interest in their surroundings, and mild depression they showed no symptoms. They were seclusive and intolerant of the sometimes dramatic emotional outbursts of patients who were less well controlled or suffered from a more severe degree of anxiety. Such old soldiers usually maintained complete control until told that they were not to return to combat; then they would break into tears and immediately afterward express shame at their display of emotion. All had considerable guilt for their breakdown in combat and were eager to return to work that would forward the war effort. When it was possible to reassign them to noncombat positions they often performed in a superior fashion. One must not be misled by the apparent absence of symptoms in this group. As pointed out in an earlier section, though these men willingly return to combat if ordered to do so, their symptoms recur immediately when they are once more exposed to shelling.

In the many patients with mild anxiety evacuated to the Center before division psychiatrists were on duty, extreme physical exhaustion appeared to be an important factor in the disability. The role played by physical exhaustion is discussed elsewhere. It is agreed that it cannot cause an anxiety neurosis but that it may be a potent precipitating factor. We found that a few days of rest and sedation rapidly removed all symptoms, and that many patients asked to be returned to duty after such treatment.

Conversion hysteria. Only true hysterical conversions, without manifestations of anxiety, were diagnosed as such. Impure conversions are seen, and, with or without treatment, complete conversions may be changed into a form in which anxiety predominates. Case 15 illustrates the striking lability of the neurotic patient with conversion hysteria.

CASE 15. A 30-year-old corporal had served with an antiaircraft battery for 5 months. During this time his unit protected divisional artillery and was subjected to repeated enemy counterbattery fire. He was admitted to the Center because he had collapsed on the previous day. He stated that his back had troubled him for a year. One month before, he had entered an evacuation hospital because of gastrointestinal symptoms. These symptoms cleared within a week. When he was about to return to duty his back again began to bother him. On return to his unit his back pain increased. Pain radiated down into his legs, and finally his legs "gave way." He steadfastly denied that he had experienced anxiety under fire. On examination he limped, there was tenderness of the lumbar spine, twitching of the legs, and hypesthesia to pinprick over the anterolateral aspects of the feet. These sensory changes did not coincide with expected root or peripheral nerve distribution. The deep reflexes and

joints were normal. Since he appeared to show hysterical conversion phenomena, he was given 0.4 gm. of pentothal intravenously. During narcosis he wept bitterly and told of increasing tension and conflict over a period of months. He was terrified at the thought of returning home as a cripple, unable to support his wife and small daughter, and felt that he would rather be dead than face such a situation. It seemed that he had successfully concealed these conflicts from himself.

Following this emotional release his legs and back improved and he was able to walk normally as he left. On the following day reinterview brought out that he felt only slight residual stiffness of the legs and back. He complained, however, that soon after the pentothal treatment he began to feel anxious and shaky and that he had been unable to sleep. Examination showed tremor of the hands. He spoke with a tremulous voice. None of these symptoms or signs had been present before pentothal narcosis. He gave the following additional history: In the past 3 months he had felt increasingly depressed, tired easily, and found it difficult to do his work. Since he felt negligent in his duty he asked to give up his rating. This request was refused by his officers, and he was kept in charge of a gun section. Although this patient showed good insight into his symptoms, their severity and his underlying anxiety led us to evacuate him to the rear.

This patient's anxiety symptoms became conscious as soon as the protective conversion was removed. The interplay of hysterical symptoms and his recovery in the evacuation hospital from what was apparently a mild gastroenteritis were of further interest.

The total number of patients with pure conversion symptoms was only 2 percent of total admissions. The most common manifestations of this type were paralyses, aphonias, deafness, and partial or total blindness. Conversions referable to the back, with camptocormia, were seen occasionally. A few patients had hysterical convulsive seizures. For the inexperienced, differentiation of these patients from those in whom there is some organic disease may present difficulties, but observation and examination should suffice to demonstrate the hysterical character of the disturbance. The reaction to pentothal narcosis often clinches the diagnosis. We also saw patients with imperfect conversions, with concomitant anxiety symptoms. In them the hysterical phenomena were usually easily cleared, often by suggestion, sometimes by enlisted personnel on the wards. Since these hysterical symptoms are easily fixed, it is important not to overtreat them. New symptoms and fixations are easily produced in these highly suggestible persons, and it is, therefore, better to omit painstaking sensory examinations unless there is a definite indication for them. The mechanism of symptom production should be explained to such patients. When diagnosis and treatment are prompt, salvage for combat is possible in most mild cases.

Although at this level most hysterical conversion symptoms are quickly and easily relieved by suggestion or pentothal narcosis, we

saw a few patients in whom it was impossible to influence these symptoms by any method. Usually such men refused to admit any fear, either in or away from combat, and thus they were in dire need of justifying themselves for leaving the line. They often begged to be allowed to return to combat in spite of completely disabling conversion symptoms. It is possible that the underlying mechanism in such reactions was furnished by strong guilt feelings, in addition to marked personal pride that forbade any admission of weakness or recognition of the true situation. Occasionally such men had been notorious toughs or bullies, prize fighters, or night club "bouncers" in civil life. Clearly their façade of toughness served only to protect a fundamentally inadequate personality. They were prone to break in combat and to show severe hysterical symptoms that were exceedingly difficult to treat.

Psychosomatic symptoms. Patients with psychosomatic symptoms are one of the most important groups seen by combat medical officers and constitute the largest potential and actual leak in the psychiatric program in forward areas. Some such men were evacuated with diagnoses of organic illness and were subjected to prolonged study and treatment. Such a policy leads to fixation of symptoms and loss of manpower. The majority of these men showed signs of anxiety. Their somatic symptoms, which might be referred to any part of the body, were usually precipitated or exacerbated by battle stress. Fixation was often seen in areas of the body previously involved by disease, wounds, or injuries, and these men continued to suffer pain or other discomfort out of all proportion to the physical signs.

Men with previous medical illnesses developed chronic and lingering symptoms when the time approached for return to duty. Old injuries, such as back strain, were rekindled under combat stress, but skeletal or neurologic pathology adequate to explain the symptoms could not be demonstrated. These manifestations provided the patients with a successful and apparently unassailable rationalization and justification for not continuing in combat. Since anxiety symptoms were almost invariably present, these patients were given a diagnosis of anxiety state. We regarded the somatic manifestations as physical expressions of the anxiety rather than as conversion phenomena. The following cases illustrate some of the problems encountered.

CASE 16. An infantryman was admitted to the Center after a syncopal attack. He had been on his feet continuously for 4 days and nights. His duties had involved constant climbing in mountainous terrain. Just before his attack he had carried two men down to an aid station. When he regained consciousness he found himself weeping, but protested against evacuation. At the Center he was shaky and tense. He said that he had had temper tantrums in childhood. He had used alcohol to excess in the past. His father had died of heart disease and

his mother had suffered from cardiac symptoms. He himself had always feared that he might develop heart disease. He had experienced attacks of chest pain and had fainted several times while in Africa. In Tunisia, after some physical exertion, he had developed anxiety symptoms that had improved without treatment. After he had had a few days of rest his heart was examined carefully and found to be normal. He was shown that his fears were groundless, and the nature of his symptoms was explained to him. All symptoms cleared rapidly and he was returned to duty.

Many cases of this type were seen. Patients frequently developed hypochondriacal fears in response to anxiety associated with somatic symptoms. In the soldier described above, severe exertion and lack of sleep may have been sufficient in themselves to account for his reactions, but, his past history and his underlying fear of heart disease rendered him unusually vulnerable to localization of complaints in this organ, and had extensive study and treatment been directed toward the heart his symptoms might easily have become severe and fixed.

CASE 17. An infantryman with 3 months of combat was admitted complaining of insomnia of several weeks' duration. He had been troubled by headaches for several months and just prior to entering the Center after exposure to heavy shelling, they had become severe. At that time he lost control of himself, developed a panic reaction, and feared that the noise would "do something to his head." His father had been an alcoholic. In 1941 the patient had been struck on the head by a baseball. He had been unconscious for an hour. One month later he was again knocked unconscious for a short period. Since that time he had suffered from headache, sensitivity to heat, dizziness, and occasional syncope. He gave the impression of having used these symptoms to avoid responsibility in civil life. Headache recurred after his first exposure to an air raid. The symptom continued during the Sicilian campaign. Examination showed no evidence of cerebral concussion. The symptom was uninfluenced by either sedation or dehydration, and the patient was evacuated for further treatment.

While this soldier had probably suffered a cerebral concussion in civil life and may have had a postconcussion syndrome, much of his subsequent reaction was on the basis of a posttraumatic neurosis, which under combat stress became exacerbated to the point of complete disability.

CASE 18. A rifleman was admitted because of back pain and nervousness that had developed after a mine explosion that killed two soldiers nearby. The patient fled in a panic and fell from a bank. He stated that he had had symptoms in his back and had been nervous ever since falling from a scaffold 2 years before. At that time he wore a plaster cast and back braces for 4 months. He had been apprehensive even in precombat training. Since joining the Army he had felt tired and had frequently had his back taped. Previous examinations, including roentgenograms, of the back, had shown it to be normal. Examination at the Center failed to show any evidence of significant injury to the back. After several days of rest the patient still complained of pain and showed marked tension. It was necessary to evacuate him.

In this man a moderately severe civilian posttraumatic neurosis became worse after psychic battle trauma and a possible mild back injury. He showed evidence of a moderately severe anxiety state and used the site of the previous injury as a neurotic protective mechanism against further danger.

The soldier with low back pain may present difficult diagnostic problems, for it is not easy to prove or disprove the existence of true significant structural pathology in such patients. The involved areas of the body should be examined sufficiently to convince both doctor and patient of the absence of disease or injury. When such evidence is absent and the findings indicate a neurosis, such patients should be treated psychiatrically. The use of analgesic drugs and strapping or other therapy directed toward the back should be minimized or omitted altogether. When the symptoms are neurotic in origin such measures do no good and merely strengthen the patient's conviction that he has a serious disease or injury.

Depressive reactions. The more severe types of depression associated with psychoses are discussed elsewhere; these remarks are limited to the relatively mild neurotic depressions that followed combat experiences. When depression was the outstanding feature in such a patient, reactive depression was diagnosed. Depression of this kind was seen most often in soldiers who had lost several close friends or a particularly well-liked officer in combat. Breakdown rapidly followed such an event. At the center these men showed apathy, depression, weeping, and seclusiveness. A few showed mild agitation. Ordinarily the severity of these reactions did not approach that of endogenous depression. The patient did not lose contact with his environment, and the risk of suicide was not great. The disturbance seemed to be an exaggeration of the normal mourning reaction that follows the loss of a close relative. Undoubtedly the combat soldier transfers many of his former emotional ties to a few close friends or officers, often to one. Such figures seem to exert an enormous psychic protective influence on combat soldiers. When these friends are wounded or killed the soldier reacts with depression, helplessness, and a feeling of being utterly lost. It is likely that strong guilt feelings may also play a part in the psychodynamics of such reactions, but we were unable to investigate this point. A few men with mild depressions were returned to their own units, because it was felt that they might recover more readily in an environment where they had other friends to replace those they had lost.

Obsessive-compulsive states. Though well-established obsessive-compulsive states with elaborate rituals or phobias were seldom encountered, a certain number of men evinced some degree of compulsive

thinking. Of special interest were soldiers of this type who, because of superior intelligence, conscientiousness, and meticulous attention to duty, had been given commissions or ratings. Such men were usually excellent garrison soldiers but poor combat leaders, because of their indecisiveness, conflicts about aggression, and repressed hostility. Unable to maintain the cool objectivity essential to making quick decisions in combat or to face the strain of assuming responsibility for men under their command—some of whom must inevitably become battle casualties—they soon develop intolerable anxiety, guilt feelings, and depression. Marked schizoid trends, commonly of a paranoid type, appeared in a few who seemed to be on the verge of a true psychosis.

Concussion. The relation of cerebral concussion to the development of combat neurosis has long been a controversial matter. Some authorities believe that concussion plays a major role—an opinion supported by the demonstration of abnormal electroencephalograms or pneumoencephalograms in patients with combat neuroses. While there may be evidence of cerebral damage, it is unsound to assess the importance of such damage in causing combat neuroses until careful control studies are made on normal groups and on wounded soldiers who do not present psychiatric symptoms. In the army centers a diagnosis of concussion was considered only when there was a history of bleeding from the ears, nose, or mouth, the coughing of blood, chest or abdominal soreness or pain, or true unconsciousness at the time of the injury, with amnesia for the flash and sound of the explosion. Further criteria were objective neurologic signs, such as cranial nerve paresis or paralysis or sustained nystagmus, and roentgenologic evidence of blast changes in the lungs.

The incidence of unconsciousness was studied in a group of 100 men who sustained battle wounds of sufficient severity to require evacuation to the zone of the interior. Although almost all these wounds were the result of shell explosions, and it seemed reasonable to assume that the men who sustained them were close to the detonation when wounded, only 9 percent of the patients questioned said they were unconscious at the moment they were wounded, and in most instances the period of unconsciousness was very short. Most of the men with battle neuroses gave a history of having been "knocked out" by an exploding shell. When closely questioned almost all said they remembered clearly both the flash and sound of the explosion before losing consciousness. Patients with true concussion rarely if ever remember the sound, and only occasionally the flash of the detonation, and regain consciousness at or near the place occupied before the explosion. Those with anxiety states "came to" at a site far

distant from their original position. With pentothal narcosis it was usually possible for the patient to recover memory of the events that took place during this interval, and it often transpired that the patient had fled in a panic state. The memory loss associated with concussion cannot be influenced by narcosis.

Changes in the eardrums are said to be helpful in confirming a diagnosis of concussion, but we did not find them so. We found abnormalities in the eardrums and auditory canals of all soldiers who had been near explosions or firing artillery pieces. Hyperemia of the canal wall, especially on the posterior aspect, and of the vessels of the drum, over the ossicles, and in the region of Shrapnell's membrane were among the abnormalities found. Occasionally small ecchymoses were seen on the drum. Acute perforation may occur also. Such changes were found also in combat soldiers who were not hospitalized. Most soldiers with definite cerebral concussion were sent to evacuation hospitals. At the army centers we saw only mild cases, often with superimposed anxiety states. Men with mild concussions sometimes developed anxiety states of moderate severity after several days of rest and after concussive symptoms had subsided. Inexperienced battalion surgeons occasionally fell into the error of diagnosing concussion in soldiers with acute anxiety reactions when they gave histories of "unconsciousness." Such patients avidly clung to such an organic diagnosis and used it to resist psychotherapy. Such impressions should be corrected and the true nature of the disturbance explained to the patient.

Special cases. A number of men without definite evidence of psychiatric disorder found their way to the army centers. They were primarily unwilling soldiers who were afraid and lacked the will to suppress fear. A few became panic-stricken in an initial action. This group showed no symptoms or signs of anxiety. There was no tension, and food intake and sleep were normal. Those with normal fear reactions were rested briefly, reassured, and returned to duty. Those who were unwilling or had given way without adequate reason were often found to be inadequate men who had avoided responsibility in civil life and accustomed themselves to taking an easy way out. Many were dependent on their mothers and leaned on them when confronted with difficulties. In childhood and adolescence they had resorted to temper tantrums to achieve their will. One of the important functions of the psychiatrist, and indeed of all medical officers in combat areas, was to recognize that such men had no true psychiatric disability that entitled them to evacuation. Such reactions were usually encountered in enlisted men, but on rare occasions were seen also in officers, as in case 19.

CASE 19. A 24-year-old infantry lieutenant had been in combat for 3 months. The spoiled son of rich parents, he had always had his own way. After a heavy action he felt tired and applied at an aid station for evacuation, which was denied when it was recognized that he was not ill. He then went to the rear and was tagged at an evacuation hospital and sent to the army center. He said that only 14 men were left in his company. They had been ordered to build a bridge, but he had felt that the men were not in condition to do so. When ordered to proceed to another position he felt unable to go and reported to the aid station. At the center he showed no evidence of physical or psychiatric disease. He complained constantly of various symptoms for which no basis could be found. He was told that he had left the division without authority and was returned with a letter explaining the circumstances. He was charged with being AWOL, but these charges were later dropped when he distinguished himself to such a degree that he was awarded the Silver Star.

This officer, no more tired than his men, showed no evidence of disease, and committed a flagrant breach of discipline in leaving. Such conduct is not to be tolerated, especially in an officer. Cases of this kind are a command responsibility and should not be allowed to continue in a medical evacuation channel. By firm handling this man was able to redeem himself sufficiently to merit decoration.

Constitutional psychopathic states. The psychopath was rarely a good combat soldier. Intolerant of discipline and lacking a sense of responsibility, he disrupted the morale of his combat unit. Punishment was of no avail. Such men were too often sent to combat units as a punitive measure. Often they were transferred from unit to unit because line officers were ignorant of the correct administrative disposition (under AR 615-368 and 615-369) or were unwilling to take the trouble to institute proceedings. Such men were sometimes evacuated through medical channels in an effort to dispose of them easily, despite the fact that medical evacuation was not permissible unless there were complications that made such disposal valid. Occasionally the troublesome, aggressive psychopath who had been a thorn in the side of his officers and noncommissioned officers in the training period, and guilty of frequent infractions of discipline, performed exceptionally in combat, when his aggression was finally channeled toward a temporarily useful goal against the enemy. A few such men were seen in army centers, where they appeared with mild anxiety states. After a short rest they were eager to return to combat, which they appeared to enjoy. They usually resumed their disruptive behavior when the unit was relieved from the line.

Psychoses. Aside from the temporarily psychotic patients with anxiety states already described, psychoses were rarely seen at the army level. Doubtless most of these patients were screened from units before combat. Of the few psychotic soldiers admitted to the army center from combat units, several turned out to be men with long-standing schizophrenic reactions who had remained undetected and

had performed satisfactorily until their symptoms became incapacitating or dangerous to others. Some were hospitalized after medical consultation had been requested for some breach of discipline. In the schizophrenic group the paranoid reactions were most frequent. A few manic-depressive psychoses were seen in the violent manic phase. All these patients were evacuated to general hospitals at the earliest possible moment.

Treatment and Disposition

General principles. Since the primary function of the Medical Department is to preserve maximal fighting strength, the medical officer must subordinate to that end his traditional interest in the individual patient. During the war we learned that the criteria for returning to duty men who had suffered minor psychiatric breaks in combat, or manifested neurotic symptoms in civil life, were misunderstood and required modification. We came to realize that more could be expected of such men than was formerly considered possible by the civilian psychiatrist. The most important points in the management of psychiatric casualties are (1) correct early diagnosis, (2) holding and treating such men as far forward as possible, and (3) relief of symptoms at the earliest possible time. These principles should be followed by all medical officers who see the patient. The important function of the battalion surgeon, who sees him first and is, therefore, the most important medical officer in the entire program, has been discussed. After the organization of services, the effective screening and early treatment practiced during the war at aid stations, division clearing stations, and army centers almost eliminated the loss from combat units of salvageable psychiatric casualties and of soldiers who had no true psychiatric disorder and thus had no claim to be evacuated.

Terminology. It was our policy to use the term "exhaustion" for psychiatric casualties. This diagnosis was the only one permissible to use on emergency medical tags forward of army level. This term was, frankly, a euphemism and its use constituted an evasion. However, it served to emphasize the important precipitating role of physical exhaustion and to imply rapid recovery after a short period of rest. It also avoided giving the impression that incurable mental illness was present, an impression still conveyed to the average layman when technical psychiatric terminology is used. In our experience in the Italian and French campaigns it was rare for patients to refer to their disorder as "shell shock." Although other terms, such as "psycho," were current, most patients referred to their condition as "exhaustion." Thus despite the defects of the term it was valuable in fostering a proper attitude in patients.

General routine of treatment. Some of the means employed to provide a proper atmosphere in the centers have been described. Every effort was made to maintain discipline and morale and to emphasize to patients that they were still soldiers and members of a military organization. On admission patients were interviewed briefly by a medical officer, who ascertained the nature and severity of the disorder and ordered appropriate treatment and sedation. The patient was reassured briefly and then put to bed. All patients were allowed 1 to 3 days of rest in quiet surroundings, with or without sedation. Adequate rest, always one of the mainstays of treatment, was particularly important in the period before divisional treatment facilities were available and the Fifth Army Center still received many patients with mild anxiety states associated with marked physical exhaustion.

All patients were required to shave and wash daily. Frequent bathing was encouraged when proper facilities were available. Soiled, torn, or other unserviceable clothing was replaced. Neatness of appearance and dress was required. Adequate intake of food was stressed. Many of these men had subsisted on insufficient or cold rations for some time before admission. In the hospital prodigious appetites were the rule even when these patients were under heavy sedation. All patients, except those who were seriously ill, were asked to get up for meals. They served themselves in a "chow line" and washed their own mess gear. On the wards they made their own beds, policed the tents or rooms, and assisted in necessary routine work about the hospital. During morning rounds the neatness of the wards and patients was checked, minor complaints were investigated and treated, and sedation orders were reviewed and changed as needed.

After the first few days of rest patients were kept out of bed as much as possible. There was then much discussion of combat experiences among patients. Such "war talk" annoyed a few men, but in general it provided a useful means of verbalizing emotion and alleviating anxiety. When these discussions became too heated they were usually curbed by the patients themselves. Occasionally the ward personnel had to exercise further control, but there were few disciplinary infractions in this group. Motion pictures were shown once or twice a week. In the Seventh Army Center short orientation talks by assigned medical officers, and occasionally by visiting press correspondents, proved helpful. The patients were encouraged to participate.

Sedation. When the Fifth Army Center was first opened sedation was given as follows: 0.6 gm. of sodium amytal or 0.3 gm. of pento-

barbital sodium were given by mouth on admission. If the soldier had been sedated adequately in a forward installation, the dose was lowered. Thereafter 0.4 gm. of sodium amytal or 0.2 gm. of pentobarbital sodium were given by mouth at 9 a. m. and 2 p. m., and 0.6 gm. of sodium amytal or 0.3 gm. of pentobarbital sodium were given at 8 p. m. This routine was continued for 2 days. The dose was varied when indicated. It was the aim to produce complete night sleep for 2 days. During this time patients were still required to wash and shave daily and to get up for meals. Under this program most patients showed some ataxia, thickness of speech, and mild confusion. After 6 months of this routine we came to believe that such heavy sedation was unnecessary. One-half the previous dosage was then given with equally beneficial results and without complications. Even with the heavy doses there were no serious difficulties or dangerous complications. Patients were closely watched for possible respiratory embarrassment. In the later periods of operation it was necessary to employ the larger doses only occasionally, when patients were treated in areas close to artillery fire. The advisability of omitting sedation in severely disturbed anxiety states (pseudopsychotic reactions) has already been mentioned.

Ward care. Certain special problems were encountered on the wards. Patients with severe symptoms who were noisy, tearful, or otherwise disturbing and exerted an adverse effect on others were segregated in separate tents. Since our facilities did not permit adequate care for many patients of this type they were evacuated to the rear as soon as possible. The firm handling of men who appeared to be exercising too little control over their symptoms, or whose symptoms were largely volitional, benefited other patients. Such men occasionally attempted to assuage their guilt feelings with voluble and tearful requests to return to the front. Such behavior undermined morale and had to be discouraged. The dramatic relief of severe symptoms with intravenous barbiturates, given on the ward, often reassured and encouraged patients who witnessed it. The management of officer patients presented some difficulties. At first they were treated in a separate ward, but under these conditions there was sometimes lack of restraint and indulgence in self-pity, and some demoralized officers with severe symptoms who reacted in an exaggerated and dramatic manner produced unfavorable effects on enlisted patients in an adjoining tent. We then treated officers in the same wards with enlisted men. This procedure gave officers an incentive to exercise self-control and set a good example. In some instances officer patients ready to return to combat encouraged enlisted men of their command to return to duty also.

Psychotherapy. The hospital routine and atmosphere, rest, and sedation all helped to rehabilitate our patients. Psychotherapy as such was conducted during the interview held with patients on the third or fourth day, when the effects of sedation had usually disappeared. Interviews were held in separate tents. The patient was questioned briefly about family history relating to nervous disorders or alcoholism and about his own childhood neurotic traits. His school and civilian work record and the adequacy of his civil and military adjustment were reviewed. Leading questions about symptoms were avoided in dealing with these highly suggestible patients. Physical and neurologic examinations were performed in sufficient detail to insure that no significant disease or injury was overlooked.

The patient was given a detailed explanation of the mechanism of symptom production and was told that it is normal to be afraid in battle and to experience certain emotional and physical responses. His symptoms were interpreted as exaggerated reactions that had temporarily passed beyond his control. The transitory nature of these symptoms was stressed, and the soldier was assured that they would not lead to insanity or other permanent disability. Technical psychiatric language, which often gives rise to misconceptions and misunderstandings, was used as little as possible. Words with which the soldier was familiar and whose meaning he understood proved more effective. Poorly motivated soldiers who were to return to duty were indoctrinated briefly. The importance of the war and the consequences of defeat to them and their families were stressed, and appeals were made to their sense of duty, pride, and loyalty to comrades, unit, and country.

Attitude of the psychiatrist. The attitude of the medical officer or psychiatrist who deals with these cases is of the greatest importance. The necessity of seeing within a short time large numbers of disturbed, unstable, and sometimes demoralized soldiers places him under great strain, but he must make every effort to maintain an objective point of view. He must avoid identifying himself with the patient or displaying excessive sympathy, but it should be remembered that kindness and understanding are not inconsistent with a realistic approach. Browbeating and outbursts of temper do only harm. With the proper approach and adequate explanation most patients accept the necessary decisions.

Intravenous barbiturate narcosis. Much has been written about the efficacy of intravenous barbiturate narcosis in treating combat neuroses, but many of the observations concerning its use were made on patients in rear areas. The method was valuable, but sharply limited in usefulness, with definite indications and contraindications. It

was most successfully employed in (1) severe anxiety states with stupor or marked regression; (2) anxiety states with prolonged periods of amnesia; (3) severe hysterical conversion phenomena, such as convulsions, aphonia, blindness, deafness, or paralyses; and (4) certain cases involving acute tics or repetitive movements. Patients with these conditions represented about 5 percent of the total admissions to army centers. The method was of no value in the ordinary moderate anxiety state, and may even be harmful in severe anxiety states with pseudopsychotic reactions. The use of barbiturate narcosis as an aid in the diagnosis of malingering is discussed elsewhere.

We eventually evolved a procedure that proved successful in the majority of properly selected cases. The intravenous sodium amytal used at first was later supplanted by pentothal, which we found much more satisfactory. It was easier to administer, less time consuming, appeared to produce a higher degree of suggestibility and better emotional release, and its after effects were of much shorter duration than those of sodium amytal. The patient was brought to the treatment tent and asked to lie down. If responsive and able to understand, he was told that he was to be given a drug that would make him sleepy and permit him to remember some of the things he had forgotten, and that this recollection would greatly hasten his recovery. Beginning with the start of intravenous administration, he was asked to count slowly backward from 100. Injection was continued until counting stopped or became grossly inaccurate, or until the patient fell asleep. Some experience was needed to judge correctly the amount of drug and the speed of injection for each patient. When the patient had reached the proper degree of narcosis, strong suggestion was begun.

In the early stages of the treatment the object was to recall to the patient the original traumatic situation in battle. He was told that he was again on the battlefield, and the statement was reinforced by loud warning, such as "Look out," or "Watch those shells," or "Duck," or by whistling to mimic approaching shells and jarring the cot. Usually the patient responded with a dramatic startle pattern, cowered on the couch, sought cover, and at times jumped to the floor to dig in or take flight. He then relived his battle experiences and talked to the therapist as if he were some officer or comrade who was with him at the time. Such recitals, highly realistic and dramatic, were often accompanied by a great outburst of emotion and expressions of resentment, hatred, or previously suppressed fear. Usually the incident that had precipitated the break was recalled. At such times the mechanism of symptom production was pointed out. By further suggestion the patient was then "brought down" from the battlefield to the hospital, and an effort was made to reconstruct and recover all

amnesic material. At this stage strong suggestion was employed to convince the patient that his symptoms were no longer needed and would disappear. When such disposition was indicated, he was told that he would not return to combat again. He was then awakened and asked if he recalled what had happened during the treatment. The material was again discussed, with further use of suggestion and explanation of mechanisms.

In a successful treatment the patient had usually recovered to a marked degree by this time. He was relaxed and frequently commented on the disappearance of his former tension. Patients who had been stuporous often sat up and rapidly regained normal speech, and their faces, formerly blank and expressionless, became more animated. Even in severe cases patients were often able to return to their work without assistance and soon joined in normal activity and conversation. In general, the greater the emotional release, the better was the end result. Patients were seen again on the following day, when further efforts were made to remove residual symptoms. The effects of this method are probably best explained on the basis of the marked abreaction and emotional release that takes place. Amnesic material is recovered and assimilated, proper orientation is established, and behavior can be rationally adjusted to the now safe environment. The achievement of these results is aided by strong suggestion, which is facilitated by the lowering of conscious and unconscious inhibitions under narcosis.

The method proved successful in about 95 percent of the patients on whom it was used. Those soldiers for whom we found it necessary to employ intravenous narcosis proved not to be good risks for return to combat. Their emotional reaction to battle had been so overwhelming, or their premilitary personalities so inadequate, that they were unfit to resume duty in battle. Only a few patients so treated could be returned to the front. Intravenous barbiturate narcosis is of the greatest value in beginning the rehabilitation of patients who are to be evacuated farther to the rear. The disorder is then attacked at the most favorable time, shortly after its onset. The method has little place in medical installations forward of army level, though in rare instances it may be necessary to use it in forward stations to control violent symptoms and facilitate evacuation. It would be a gross misconception to assume that its widespread use as a therapeutic method in aid stations or division clearing stations would salvage for combat many patients with severe symptoms.

Treatment of psychiatric complications in other casualties. Because of the prevalence of psychosomatic disorders, it is essential that all medical officers practicing combat psychiatry be well grounded in internal medicine and skilled in the differential diagnosis of organic

and neurotic symptom complexes. If psychosomatic patients are properly treated from the psychiatric point of view and the disturbance is of recent and acute origin, it should be possible to return a high percent of them to duty. In those who have had long-standing symptoms in civil life the outlook for return to combat is poor, and eventually rehabilitation even for limited service is difficult. Knowledge of psychiatric treatment principles is necessary also for medical officers who deal with patients who leave combat with wounds, disease, or injury. Such patients may develop neurotic complications when removed to safe and comfortable hospitals in the rear. Symptoms referable to the site of the wound or illness may persist unreasonably or become exaggerated. The period of hospitalization should be kept to the minimum time consistent with the restoration of combat efficiency. Physical and mental rehabilitation should begin at once. Inactivity should be avoided as much as possible. Soldiers who returned to combat after hospitalization for minor wounds or illness were more vulnerable to subsequent psychiatric breakdown. Their psychic protective mechanisms appeared to have been weakened and their feeling of invulnerability impaired, and relatively minor psychic trauma would then produce the final break soon after return to combat.

Rehabilitation of patients evacuated to the rear. The army center played an important role in the rehabilitation of soldiers deemed unfit for further combat. Whenever possible severe symptoms were removed completely. Combat neuroses are highly labile and are most easily influenced shortly after onset. At this stage motivations for the elaboration of symptoms or for deriving secondary gain from the disorder do not present themselves. Many of these patients were able to do any type of work except full combat duty, and most of them were eager to work, partly to alleviate guilt feelings and partly because they soon became aware that activity alleviated their anxiety. Prolonged rest and inactivity in comfortable hospital surroundings are the greatest menace to ultimate recovery. They provide opportunity for brooding, tend to fix neurosis, assist in the deteriorating process of self-justification, and hasten the onset of demoralization and invalidism. Patients whose severe symptoms necessitated evacuation to the rear were told that they would not be returned to combat. They were reassured, their symptoms were removed by the various methods described, and they were informed that the best means to achieve rapid recovery was to make every effort to return to useful, active work at the earliest moment.

Such an approach is entirely rational in view of the structure of the combat neurosis. One of the primary personality changes effected by this disorder is an inability to adapt further to the stresses of

combat. A secondary loss of adaptability follows and may make adjustment even to the ordinary responsibilities of life difficult. This change is accompanied by feelings of insecurity, loss of self-confidence, distrust in authority, and depression. Rehabilitation must aim to strengthen the ego and restore self-confidence and normal adaptability. In overseas theaters this purpose was best accomplished by urging rapid return to duties that tangibly furthered the war effort. Patients were told that their recovery depended largely on their own strength of will, and that their symptoms, which would probably recur when they were faced with difficulties, could best be overcome by continuing at work.

The value of this method was demonstrated by an experiment with three provisional companies made up entirely of men reclassified for psychiatric reasons in the Italian campaign. They were put to work in depots that provided supplies needed on the Cassino front. The work was of direct help to their former comrades. During the 2 months of operation the discipline and performance of the men in these units was excellent and their attendance at sick call infrequent. When such soldiers have been reassigned it is important that they be treated as normally as possible by their fellows and officers. Too often military or medical officers in base section units regard them as sick and give them special privileges or, more rarely, subject them to unnecessarily harsh discipline. A high unit morale, with good unit pride and loyalty, provides the best environment for rehabilitation. Medical officers dealing with these men must aid them by reassurance, encouragement, and, when indicated, by judicious prodding. Unless it is absolutely necessary they should not be returned to hospitals when their symptoms reappear, for hospitalization serves only to convince them of their inability to carry on. In army centers the ordinary methods of occupational therapy, as employed in civil mental or general hospitals, were impracticable and of little value. It was usually difficult if not impossible to interest our patients in such activity.

Disposition of patients is the responsibility of the medical officer. The decision should not be left to the patient. He is unable to make it, and he cannot honestly be said to wish to return to combat if there is an honorable alternative. When the medical officer decides that a soldier is fit to return to duty he should be so informed with firm conviction. Temporizing or evading the issue does much harm. The desired purpose is not achieved by such statements as: "We will rest you a little longer and then see you again," or "Don't you think you can make it up there again?" or "Try it again; if you can't make it, ask your company commander to send you back." Such statements

imply that the medical officer doubts the ability of the soldier to do combat duty. They undermine the soldier's morale and weaken his will to continue. Once a decision has been made it should not be reversed unless there are good reasons for doing so.

Criteria for return to duty. The final indication for returning a soldier to duty is his ability to perform the duty. The criteria mentioned in the section on "Psychiatry at the Division Level" should be followed in army centers as well. One must remember that patients evacuated from a division have already been seen by both the battalion surgeon and the division psychiatrist. Their opinion of the case, based on close observation shortly after the onset, should have weight in making disposition at army level. Opinions or requests for reclassification forwarded by a soldier's commanding officer should also be considered carefully in the final evaluation. All

TABLE II

Factors favoring return to duty or evacuation

| Factors favoring return to duty | Factors favoring evacuation |
|---|--|
| <i>History:</i> | |
| Previous efficiency in combat..... | Poor adjustment in combat. |
| Favorable opinion of potential ability by commanding officer, battalion surgeon, and division psychiatrist. | Request for reclassification by commanding officer, battalion surgeon, and division psychiatrist. |
| Short exposure to mild combat stress.... | Long exposure to severe combat stress. |
| Good civilian and military adjustment... | Poor civilian and military adjustment. |
| First "break" in combat..... | Recurrent "breaks" in combat. |
| <i>Behavior and response to treatment:</i> | |
| Rapid, complete subsidence of symptoms with treatment. | Persistence of significant symptoms after treatment. |
| Mild symptoms on entry..... | Severe symptoms or psychotic behavior on entry. |
| Normal food intake and sleep..... | Disturbed food intake and sleep. |
| | Persistent, severe battle dreams. |
| <i>Examination:</i> | |
| Absence of or mild residual signs: tension, tremor, abnormal sweating, tachycardia. | Persistence of tension, marked tremor, tachycardia, sweating, startle patterns, confusion, marked neurotic emotional lability, depression. |
| Conversion signs relieved or markedly improved. | Persistent severe hysterical conversions. |
| Good insight..... | Insight poor or absent. |

the following criteria should be used in arriving at a decision concerning disposition. In the history: the length of time spent in combat, the duration of the symptoms, the presence of premilitary neuroticism or inadequacy, and previous hospitalization for combat neurosis are important. In the examination: the nature and severity of the disorder, the response to treatment, the presence and degree of residual symptoms, and the soldier's attitude are determining factors. The impression the patient makes on the psychiatrist is perhaps the best index for final evaluation, but only extensive experience in observing and treating combat neuroses enables him to interpret these impressions correctly. Table II shows some of the criteria for determining whether the soldier should be returned to duty or evacuated. Table III shows the types of patient returned to duty and those evacuated. These are merely rough guides. Only careful clinical judgment can be relied on as a sound basis for disposition of the individual patient.

TABLE III

Types of patient returned to duty or evacuated

| Returned to duty | Evacuated |
|---|---|
| <i>Anxiety states:</i> | |
| Pure physical exhaustion with mild anxiety. | Severe anxiety states (including pseudopsychotic reactions). |
| Mild anxiety states..... | Moderate anxiety states of long duration, or unrelieved after treatment. |
| Moderate anxiety states with good response to treatment. | Severe, chronic, unrelieved psychosomatic symptoms. |
| Psychosomatic symptoms, mild or improved after treatment. | Severe recurrent anxiety states. |
| <i>Hysteria:</i> | |
| Mild conversion symptoms relieved by treatment. | Severe unrelieved conversion symptoms; fugue states. |
| <i>Concussion:</i> | |
| Mild concussion with complete recovery.. | Severe concussion with residual signs or severe, unrelieved, superimposed anxiety. |
| <i>Other types:</i> | |
| "Unwilling" soldiers..... | Major psychoses. |
| Malingers..... | Severe reactive depressions. |
| Uncomplicated psychopathic states..... | Psychopathic states with superimposed psychosis or severe unrelieved neurosis. |
| Mild mental defectives without significant anxiety. | Mental defectives, severe, or with unrelieved anxiety. |
| Mild enuresis, combat induced, not incapacitating. | Disabling degrees of enuresis on an organic basis or as a manifestation of severe neurosis. |

A few additional points should be kept in mind in relation to criteria for return to duty. Our experience indicated that the family history was not of much value determining the soldier's fitness for duty. A history of familial neuropathy was given by many soldiers who performed well in combat for long periods. As pointed out elsewhere, a history of civilian neurosis is also less important in determining poor performance in combat than was formerly thought. In the Seventh Army the following policy was established for the disposition of officers with psychiatric disorders: If an officer was suffering from a true cerebral concussion, a psychosis, or a severe, combat-induced neurosis that had appeared after long and faithful service, he was treated according to the criteria for disposition set up for enlisted men. Moderate or mild anxiety states in officers were likewise treated and disposed of according to these criteria. If, however, the officer broke down after limited exposure to combat stress or after mild combat stress and gave evidence of preliminary neuroticism or inadequacy, he was returned to his unit for administrative reclassification. Officers who deliberately shirked or evaded duty were referred for court martial.

It is essential that combat troops have superior leadership. An officer who does not possess leadership qualifications or who may endanger the lives of his men by his nervous instability should not be allowed to lead troops in combat. An officer with a history of instability or inadequacy should not have been commissioned, for such traits preclude the ability to give adequate leadership. Medical evacuation of such officers rewards their failure, for it often leads to their promotion to a safe position in the rear, a procedure that greatly damages the morale of combat troops. When reclassification of an officer is considered, the welfare of the troops is paramount and must outweigh sympathy for the officer concerned.

Results. From 21 December 1943 through 15 June 1944 the Fifth Army Center returned to full duty 31 percent of all admissions. From 15 August 1944 through 1 January 1945 Seventh Army Centers returned to combat duty 24 percent of admissions. Early in March 1944 the center, operating in an evacuation hospital in the Anzio beachhead campaign, returned 10 percent of its admissions to combat. The number of patients who can be returned to duty from an army center varies widely. When experienced psychiatrists are working in divisions with long combat exposure, screening is highly effective, and the number who can be returned after evacuation to an army center will be very low. With new and inexperienced divisions screening is often less effective, and a greater number of patients evacuated to the army center will be returned to duty. The army center furnishes additional screening facilities and insures the maximum salvage for psychiatric casual-

ties. At Anzio the poor results were probably accounted for by the exposed location of the hospital, which was situated literally on a target surrounded by artillery. Under such circumstances treatment of combat neuroses was highly unsatisfactory.

Recurrences. Soldiers whose psychiatric symptoms recurred after return to duty were re-evacuated to army centers. In this way the efficacy of treatment and the validity of criteria for return to combat could be estimated. The data may be inaccurate, since it is possible that some men with recurrences were sent to other hospitals with non-psychiatric diagnoses. In the Fifth Army, from 21 December 1943 through 15 June 1944, 13 percent of the cases returned to duty were evacuated a second time. In the Seventh Army, from 15 August 1944 through 1 January 1945, 28 percent of the patients returned to duty were re-evacuated. Many of the recurrences in the Seventh Army were in soldiers who had no psychiatric disease but were merely poorly motivated or unwilling. They had probably achieved evacuation by persistent attendance at sick call held by inexperienced medical personnel who were unaware of correct diagnostic criteria. Of the Seventh Army recurrences 17 percent were sent to duty a second time. Of this group a majority were thought to have no psychiatric disease.

The difference between the recurrence rates in the Fifth and Seventh Army Centers may also be attributable in part to the fact that the Fifth Army Center operated for $2\frac{1}{2}$ months before a divisional psychiatric program was re-established. During this time the center probably received a higher proportion of mildly psychoneurotic patients, who were good risks for return to duty, than they received at a later date. The Seventh Army received many patients from old divisions that had had long combat experience and were staffed with experienced medical personnel. The material received from such units was well screened and little salvage was possible at the army center. In the Seventh Army the policy of sending all psychiatric patients to the centers, even if they were admitted to evacuation hospitals with erroneous diagnoses, was carefully observed by these installations. It is probable, therefore, that the data on recurrence in the Seventh Army are more nearly complete than those for the Fifth Army.

A study was made of recurrences in the Seventh Army to determine the length of duty in combat units before readmission. The results are given in table IV. The majority of these patients were readmitted within 10 days after their return to combat. Of the total number, however, 30 percent remained on duty for a month or longer before they became incapacitated. Many of these soldiers had been treated in the Fifth Army Center or in general hospitals during the Italian campaign.

TABLE IV

Period of combat duty of psychiatric casualties between return to duty and recurrence

| Time on duty before recurrence (days) | Percentage of patients | Time on duty before recurrence (days) | Percentage of patients |
|---------------------------------------|------------------------|---------------------------------------|------------------------|
| 0-10 | 46.8 | 91-120 | 5.7 |
| 11-30 | 22.4 | 121-180 | 6.8 |
| 31-60 | 6.8 | 181-240 | 6.1 |
| 61-90 | 2.7 | 241-360+ | 2.7 |
| | | | 100.0 |

SUMMARY

It is possible to salvage a large proportion of psychiatric casualties for combat, provided they are seen and treated soon after the onset of the disorder. In those unfit for further combat early treatment greatly hastens rehabilitation. Combat fitness can be estimated accurately only by performance in combat. Soldiers with poor family backgrounds or past histories of civilian neuroses sometimes performed adequately in combat for long periods. Knowledge of diagnostic criteria is essential for all medical officers operating in combat areas if true psychiatric disorders are to be differentiated from normal fear reactions, poor motivation, and mere unwillingness. To achieve maximum salvage for duty all medical officers must apply correct treatment principles in the management of both psychiatric and nonpsychiatric patients.



The Base Section Psychiatric Hospital

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Basic to any military psychiatric program is the knowledge gained by experience in the two world wars—that delay in psychiatric treatment causes a preventable loss of manpower. Thus the nature of psychiatric disorders, as well as the basic task of every military medical installation—the restoration to effective duty of as many soldiers as possible—makes it imperative that psychiatric casualties be handled quickly and expertly.

With division and army psychiatric centers functioning adequately, the establishment of base psychiatric centers completed the necessary facilities for good psychiatric service in the Mediterranean Theater of Operations. For the operation of a station hospital as a base psychiatric center, an adequate staff of psychiatrists was assigned and provision was made for treatment of 500 psychiatric patients, with allowance for expansion. It was anticipated that the concentration of facilities and personnel in a specialized type of hospital would make possible the investigation of all forms of psychiatric disorders occurring in an active theater of operations, the interpretation of the etiology factors producing these disorders, and the formulation of standards for evaluating the prognosis and therapy of psychiatric patients.

The primary function of the base psychiatric center was to receive patients originating in the Army Ground Forces in order that most battle-induced neuroses reaching base sections might be cleared through a unit prepared to handle them. Whenever the base section was close to the fighting front this function was realized, but when the hospital was located in a rear base section, or when the front was relatively inactive, the hospital received the entire range of psy-

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chiatric patients appearing in base section or garrison units. Since the two base psychiatric centers in the theater "leapfrogged" each other with changing military demands, each unit received a wide variety of clinical material for study and treatment and was afforded an opportunity for reviewing every type of psychiatric case encountered in this theater. Admissions to the hospital in groups of 25 to 200 were generally by transfer from other hospitals, either in another or in the same base section or from the forward army psychiatric unit. Direct admission through the outpatient department of the hospital also provided a large number of patients.

CLINICAL MATERIAL

About 4,000 patients were studied in a period of 10 months. The nature of the clinical syndromes varied widely in different phases of the operations. Virtually all patients received directly from Army Ground Force units, usually via the army psychiatric clearing company, were suffering from acute battle-incurred neurosis. The prognosis in this type of case was excellent, the period of hospitalization relatively brief, the morale high, and disposition almost always to a reclassified form of duty.

On the other hand, when large shipments of patients were received for domiciliary care while awaiting transshipment to the United States, the problem of treating a severe, chronic, therapy-resistant neurotic and psychotic hospital population arose, and this problem became more complex with the progressive rise in this type of patient when poor shipping facilities prevented their transfer.

To appreciate the battle neurosis syndromes as observed in an active theater of operations, it must be remembered that the psychiatrist observes only one phase of a continuously changing series of reactions that begins with the first precipitation of symptoms. Subclinical anxiety affects the majority of soldiers in a theater prior to combat. Special circumstances are, however, required to precipitate the incapacitating clinical symptoms. It is necessary to gain some insight into what the patient was like before the given period of observation and how he is likely to respond to future situations. From the clinical material studied at this hospital it was possible to select groups of patients that represented various, though certainly not all, clinical stages through which a patient may pass. The diagnostic categories were combat-induced neurosis, noncombat neurosis, constitutional psychopathic states, and psychosis.

COMBAT-INDUCED NEUROSIS

Customary practice in this theater differentiated between combat-incurred and noncombat-incurred neuroses. The combat-incurred

neurosis was arbitrarily so designated if the symptoms developed in or immediately after combat, or if the condition was directly attributable to combat. These criteria excluded some patients who should have been included, since it was difficult to evaluate the role of combat in causing illness of patients whose symptoms developed in a rest period or were precipitated by some intercurrent illness or accident. In many such patients anxiety and tension had been present or mounting since the combat experience. On the other hand, such a definition included all patients in whom combat-precipitated symptoms aggravated a preexisting neurotic syndrome. This arbitrary classification did, however, serve to designate for statistical purposes the number of men lost from the front as a direct result of psychiatric illness.

Acute types

These patients were received at base section hospitals within 3 or 4 days of their evacuation from the front. They represented 88 percent of admissions to the base section neuropsychiatric hospitals in advanced base sections. Patients with acute anxiety states accounted for 75 percent, manifested predominantly by free anxiety; 2.5 percent were diagnosed as conversion hysteria; and the remainder showed a mixture of symptoms, of which anxiety was most pronounced, but to which were added hysterical, hypochondriacal, depressive, or obsessive reactions. On the whole the symptoms were mild and responsive to therapy. The average period of hospitalization was eleven days. In this group morale, cooperation, and eagerness to return to some form of duty were good. Customary terminology in this theater designated patients returnable for general duty as class A, for noncombat duty as class B, and for return to hospitals in the zone of the interior as class C. The disposition of acute cases was as follows: class A, 1 percent; class B, 96.5 percent; and class C, 2.5 percent (table V).

Anxiety states. In the North African campaign the clinical findings of acute anxiety states differed markedly from those seen in the Sicilian and Italian campaigns, and judging all combat neuroses by the North African experiences would, therefore, have led to erroneous conclusions. The overt evidences of anxiety in patients from the Sicilian and Italian campaigns were generally much less severe than in those seen in the Tunisian campaign. Writing of the North African campaign, Grinker and Spiegel¹⁴ state: "By the time these patients reach the hospital the clinical picture is uniformly one of anxiety accompanied by persistent coarse tremors of the extremities. Various degrees of loss of appetite, restlessness, and insomnia are

¹⁴ Grinker, R. R., and Spiegel, J. P.: *War Neuroses in North Africa: The Tunisian Campaign*. New York: Josiah Macy, Jr. Foundation, 1943. (Later published as: *War Neuroses*. Philadelphia: The Blakiston Company, 1945.)

present. The patients feel jittery and apprehensive all the time, and are unable to keep themselves from jumping at the sound of a loud unexpected noise."

TABLE V

Incidence and disposition of combat-incurred and noncombat-incurred neuroses in percent

| | Combat-incurred neurosis | | | Noncombat-incurred neurosis | |
|--------------------------|--------------------------|----------|----------|------------------------------------|--------------------------------|
| | Acute | Subacute | Chronic | Advanced base section ² | Rear base section ³ |
| <i>Incidence:</i> | | | | | |
| Anxiety state---- | 75.0 | 81.0 | 65.0 | 50 | 25 |
| Anxiety hysteria----- | 9.0 | 1.0 | 5.0 | | |
| Conversion hysteria----- | 2.5 | 7 | 12.5 | 3 | 20 |
| Reactive hysteria----- | 0.7 | 2 | 3.0 | | 2 |
| Other types----- | 12.8 | 10 | 14.5 | 47 | 53 |
| Total----- | 100.0 | 100.0 | 100.0 | 100 | 100 |
| <i>Disposition:</i> | | | | | |
| General duty---- | 1.0 | 0 | 0 | 0.5 | 4 |
| Noncombat duty----- | 96.5 | 30 | ± 1 | 90.0 | 50 |
| Evacuation----- | 2.5 | 70 | ± 99 | 9.5 | 46 |
| Total----- | 100.0 | 100 | 100 | 100.0 | 100 |

¹ Unquestionably some of these cases were included with the anxiety state group.

² From combat situations.

³ From replacement depots.

⁴ The majority of these cases had been processed for return to the zone of the interior in other hospitals.

In sharp contrast, most patients admitted to the base section psychiatric hospital in Italy presented relatively benign findings. Since only the most severely neurotic patients evacuated from the front eventually reached the base section psychiatric hospital for treatment, these differences in the clinical findings were remarkable. They were accounted for in part by the changing tactical situation, for conditions in the Sicilian and Italian campaigns were very different from those in the early part of the Tunisian campaign, when unseasoned troops faced by overwhelming air superiority developed severe panic reactions. These conditions were altered when the victorious offenses began in North Tunisia and continued during the Sicilian and Italian campaigns.

Next in importance in accounting for the benign character of the anxiety reactions in the later period was the adequate psychiatric

care provided for the first time in forward areas, reaching its highest efficiency with the establishment of army psychiatric units and the assignment of division psychiatrists. Sedation and rest, provided first at the battalion aid station, were continued through the division clearing station. Patients who could no longer perform in combat were rapidly evacuated through psychiatric channels, under continuous expert treatment. By the time these patients reached the forward army psychiatric unit or the base section psychiatric hospital, their most severe symptoms had been eliminated, and thus the more serious complications were avoided. Anxiety states represented 75 percent of all acute battle neuroses. Free anxiety, the outstanding symptom, was manifested by tension and tremulousness of a relatively mild degree. Coarse tremors were rare, and headache, startle reactions, and irritability were infrequent. Battle dreams and insomnia were the most common complaints. Most of the patients appeared moderately tired and desirous of rest. The exceptional patient with hyperkinetic reactions and jerky or even parkinsonian tremors was free from these symptoms after 24 hours of wet packs.

All these patients adjusted quickly to the hospital environment, were willing to cooperate and follow the routine of activities, and were appreciative of everything done for them. They improved rapidly and within a few days were usually completely symptom free and ready for noncombat duty. Unlike the several weeks required in Grinker's¹⁴ series, the usual period of hospitalization in the majority of these cases was 7 days. The following cases are illustrative of this type of patient.

CASE 19. A 24-year old sergeant was admitted to the hospital because of severe anxiety and tremulousness. In the Regular Army for 8 years and overseas 19 months, he had fought with his unit from the time of the invasion of North Africa until he became ill during the march on Rome. He began to get jittery in the early stages of the Italian campaign, but continued on duty until the final break. He participated in the entire Sicilian campaign. Five days before the last battle he had premonitions of being killed in battle. After 3 or 4 days of heavy action, in which many were killed and he was strafed by friendly planes and shot at by friendly tanks, he became anxious and tremulous and cried that he "wouldn't and couldn't go forward." He was "cooled down" by his comrades and evacuated. On admission to the hospital he stated that he "felt fine" as long as he was away from the front. There were no gastrointestinal symptoms and his appetite was good. He showed no tremors. His sleep was poor at first and disturbed by battle dreams. He repeated that he could no longer function in combat. His past history indicated that he had been subject to premonitions all his life, and he was particularly so when overseas. His premonitions about the death of other men in combat had proved correct. He was worried about his child, of whom he had had no news since his wife had asked him for a divorce a year before. He was depressed about his length of service overseas and his "inability to get home." The physical examination was negative. Under routine hospital care he improved rapidly.

In 6 days he was discharged to the replacement depot and reclassified to non-combat duty.

CASE 20. A 24-year-old infantry private with five years' service in the Regular Army, had been overseas 19 months. He had fought in Africa, Sicily, and Italy, and had conducted himself well, except for some slight jitteriness, until 5 or 6 days before admission to the hospital, when a "dud" landed near him. Thereafter he shook, prayed, stayed in his foxhole, and could not go on with his unit. "There is a limit to what a man can take," he said. He had been wounded twice in the previous year. He required 6 weeks' hospitalization for shrapnel wounds of the buttocks and 3 months' hospitalization for a wound of the upper extremity. He had made a good social adjustment in the past, though he was a nail biter. On admission to the hospital he was mildly tense and anxious, but not tremulous. He slept well and had no battle dreams. Loud noises brought back "bad memories." Except for anorexia, he had no gastrointestinal symptoms. The physical examination was negative. He made a good recovery and was discharged to noncombat duty.

Conversion hysteria. Conversion hysteria was the diagnosis in 2.5 percent of the group. These patients were notable for their lack of visible anxiety. Many exhibited the "belle indifférence" characteristic of hysteria. From most of them a history of a fugue episode, acute panic reaction, or transient period of amnesia on the battlefield was easily elicited. Subsequently various forms of motor disturbances were evident, including monoplegia, astasia-abasia, and transient weakness. There were also auditory, visual, and speech defects, and, more rarely, a persistent amnesia. In contrast to the situation in the North African campaign, patients of this group, from the Sicilian and Italian campaigns, were free of their major conversion symptoms by the time they reached the base section psychiatric hospital. Gastrointestinal symptoms and somatic symptoms referable to injured regions or organs were more persistent. This group of patients was less responsive to treatment by hypnosis and suggestion, but the majority could be assigned to limited duty after a brief period of hospitalization. Cases 21 and 22 are illustrative of the conversion hysteria group.

CASE 21. A 23-year-old infantry private suddenly developed a complete flaccid paralysis of the left side while in combat. He had been very anxious and had felt that he would become ill, but this episode developed after a short sleep. He failed to improve during evacuation, in spite of faradism and suggestion, with and without sodium amytal. On admission he had a complete flaccid paralysis of the left arm and leg, with sensory loss. The reflexes and cranial nerves were normal. He was fairly cheerful. He was given 0.25 gm. of sodium amytal intravenously. His cheerfulness increased and under strong suggestion and persuasion he moved his left shoulder and elbow fairly well. His unconscious resistance was marked in a recurrent slip of speech: "This is worse than I ever was before," meaning that he was better. He expressed some anxiety about his battle experiences and was urged to tell about them. Under hypnosis he moved his paralyzed limbs well, but his general condition was not favorable. He walked well, but did not use his left arm. His attitude was superficially pleasant, but

underlying hostility and resistance were evident. This severe major hysteria was complicated by conscious and unconscious resistance to cure. The patient had been treated by four medical officers, all of whom met with the same general response, though there was some symptomatic improvement. Physical examination was negative. The patient was evacuated to the zone of the interior.

CASE 22. A 32-year-old infantry private, with 7 months' service who had been overseas less than a month, was admitted to the hospital with aphonia, deafness, and a violent body tremor. Three days before admission to the base section hospital an exploding shell had "knocked him out." He was amnesic for 2 days after the explosion. The noise of the big guns had impaired his hearing, and he awoke in the clearing company completely deaf. There, under intravenous sodium pentothal, he became mute and smiled in a hebephrenic manner. While he was in an evacuation hospital his mutism cleared up slightly, and he could whisper on arrival at the base section hospital. His hysterical symptoms were removed under hypnosis, enabling him to talk well and leaving only a residual partial nerve deafness that he had had for many years. The tremor disappeared. His personal history revealed a rather inadequate, emotionally unstable person who was easily upset. He had had an 8th grade education. He stated that he could never tolerate noise before he joined the Army and "knew he would not be able to stand guns." He had spent 3 years in the Civilian Conservation Corps beginning in 1932, and received an "excellent" discharge. He then operated a truck. He stated that he was happily married. He had had malaria in 1939 and afterward was unable to walk for 2 weeks. He believed that his "legs were still weak from it." After treatment by hypnosis and suggestion he improved rapidly, and after 10 days was assigned to noncombat duty.

Anxiety hysteria. Soldiers with anxiety hysteria comprised 9 per cent of our patients with acute battle-incurred neurosis. In contrast to those with simple hysteria, who displayed little overt anxiety, this group manifested a great deal of free anxiety. Their anxiety was not as intense as that of patients with anxiety states, nor were their hysterical symptoms as clearly defined as those of patients with conversion hysteria. The history usually showed that panic was the precipitating event. Transient fugues and amnesias occurred simultaneously. Neurocirculatory symptoms were pronounced in some of these patients. The following case typifies the anxiety hysteria group.

CASE 23. A 30-year-old infantry private, 4 months overseas and 10 days in combat, was knocked out for a moment by an exploding shell. For a day he apparently reacted in hysterical fashion. He stated that he was dazed during this time; that he was told, and partly remembered, that he tried to hit everybody. This episode occurred 1 week prior to admission to the hospital. He had previously been treated in an evacuation hospital. Since the onset he had had frequent right-sided headaches, which were worse at night, when he worried about combat or his family. In the hospital he reacted with panic to the sound of gunfire, running wildly and yelling for a friend. He stated that he cried frequently at his memories. Past history revealed a slightly hysterical, emotionally unstable person. He had had a 7th grade education, a fair work history, and a fairly sheltered life. He said that he "would die if anything happened to his wife." Physical examination was negative. After 6 days he was discharged to a noncombat assignment, greatly improved.

Reactive depression occurred as a separate clinical entity in 0.7 per cent of the patients with acute battle-incurred neurosis. In the early stages of the anxiety states, however, guilt feelings and reactive depression centering about the soldier's inability to remain in combat were prominent symptoms, particularly pronounced in commissioned and noncommissioned officers with a long period of good service. Men with severe reactive depressions were inclined to be suicidal, and were the least responsive to psychotherapy of any group. The prognosis was usually poor unless electroshock therapy was employed. Differential diagnosis from psychotic depression was established on the basis of the dynamic material elicited by narcoanalysis.

CASE 24. A 24-year-old lieutenant with $2\frac{1}{2}$ years of service had been overseas 10 months. Eight months before admission to the hospital two of his men were killed by a shell that landed close to him. He became tense and depressed, lost spontaneity, and felt that he had to "push himself" all the time. He displayed increasing lack of judgment and difficulty in self-control, particularly when under shellfire. Sleep was disturbed and irritability became pronounced. In the weeks prior to hospitalization he broke down and wept on several occasions. On admission he appeared depressed and discouraged and expressed obsessive thoughts about the men he had lost. His case was unusual in that he improved in the hospital as a result of simple reassurance and in a week was ready for a noncombat assignment.

Other types. Under this designation are grouped the rest of the acute cases. In these patients there was no fixed pattern of symptoms. It was possible to elicit from most of them a history of neurotic symptoms in civil life which had been reactivated and aggravated by combat experience. The chief symptoms were hypochondriacal. There were severe somatic complaints, gastrointestinal difficulties, backache, headache, arthralgias, or any combination of these symptoms, together with variable degrees of phobias, tension, anxiety, depression, and emotional instability. These patients were resistant to therapy, but were generally able to perform noncombat duty after a period of hospitalization. Case 25 is representative of the group.

CASE 25. A 32-year-old staff sergeant, who had come to this theater 5 months previously as a squad leader, was on duty with his organization until 4 days before admission to the hospital. He had been exposed to several days of severe artillery fire and gradually became fearful, tremulous, and confused. Aware that he was incapable of killing the enemy and overwhelmed with dread that he himself would be killed, he threw away his rifle and made his way to the aid station. He was a high school graduate and had operated a general store for several years until drafted. He was happily married. He had had many bouts of malaria in civil life, but his medical history was otherwise negative. His mother had suffered from a nervous breakdown ever since he had joined the Army. The patient spoke in a whimpering voice and gave a tearful account of his battle experiences, stating that he was poorly led by his officers and saw the lives of fellow soldiers needlessly sacrificed. He displayed a marked degree of circumstantiality and self-pity in his story. His attitude toward duty was

poor, but he improved sufficiently in 7 days to be reclassified to a noncombat assignment.

Subacute types

In this large group of patients the clinical findings were intermediate between those of acute and chronic types. Descriptions of the various clinical pictures would be repetitious. These patients, who arrived at the base 10 to 21 days after leaving the front, represented 16 percent of admissions to the base section neuropsychiatric hospital in the rear base section. Anxiety states comprised 81 percent of the cases; conversion hysteria, 7 percent; reactive depression, 2 percent; and other types, 10 percent. Only rarely did cases seem to fall into the anxiety hysteria group. The level of morale in these patients was much lower than in acute cases. Their disinclination to continue on foreign duty was obvious. The hospitalization period averaged 3 weeks, as compared to the slightly more than 1 week for acute cases. Seventy percent were returned to limited duty and 30 percent were evacuated to the zone of the interior. None returned to combat.

Pseudopsychoses

This term is applied to a type of reaction in which the patient is so out of contact with reality and his behavior is so bizarre as to give an initial impression of a psychotic process. Although the clinical findings show great variation, there are several distinctive features that qualify the illness for a separate group: the onset is relatively acute; the illness is battle induced, an important difference from a true psychosis; and clinical response to therapy is good, though in our experience few patients were able to continue on foreign duty. Although clinical reports from the army neuropsychiatric center and from other base section hospitals indicated that abreaction was not a useful therapeutic measure for this group, we found that some of the withdrawn, retarded, and catatonic patients responded after barbiturate abreaction and continued to improve after rapport was established. The agitated, restless, and generally disturbed patients were received by us after barbiturate therapy had failed in forward hospitals. They responded dramatically to electroconvulsive treatment. In general the illness most closely resembles catatonic schizophrenia, and this is the erroneous diagnosis most frequently made. The following case illustrates the stuporous type of pseudopsychosis.

CASE 26. A 21-year-old soldier was admitted in a deep stupor, necessitating tube feeding. He assumed an intrauterine position. His transfer diagnosis was catatonic schizophrenia. Under intravenous sodium amytal he regained complete contact with reality, but had a total amnesia for his abnormal behavior. The last thing he recalled was that his sergeant had made derisive remarks about

his abilities as a front-line soldier. He was an intelligent but rather dependent person who had no past history of mental disturbance. He had little abreaction and returned to the stuporous state when the effects of the drug subsided. There was dramatic recovery after 3 electroconvulsive treatments. After a course of 8 treatments he was evidently functioning at about the same level of emotional adjustment as before the onset of the illness.

At the other extreme is the type of patient who is in a state of constant agitation. The movements are diffuse and apparently purposeless, there is complete disorientation, and no response is made to ordinary, simple, factual questions. These patients are hypersensitive to sound and touch stimuli. Recovery is often slower than for the stuporous type, but again the prognosis is good following a course of electroconvulsive treatment. The patients groan and moan and sometimes mutter, sometimes scream, for an hour at a time. Often they repeat a significant word or phrase such as: "Let's duck!" or "Take cover!"

NONCOMBAT NEUROSIS

When the base section psychiatric hospital was operating in an advanced base section, 28 percent of the psychiatric patients evacuated from the front gave a history of premilitary psychiatric difficulties. About half of them were capable of a normal adjustment in the military situation until they were exposed to combat. The combat situation increased their anxiety and neurotic symptomatology to a degree that incapacitated them for further duty. These patients are included in the data on combat-induced neuroses, and are not considered here. In general, tolerance for combat in this group was lower than that of previously healthy soldiers, although in individual instances performance was surprisingly good. The clinical syndromes consisted of the usual symptoms seen in combat neuroses, superimposed on old symptoms.¹⁵

In the rest of this group failure in the combat situation was part of a pattern of failure antedating the combat situation and military duty. In this group the combat situation was not of critical importance in determining hospitalization, and these patients are accordingly classified with the noncombat neuroses. The diagnostic categories were anxiety state, 50 percent; hysteria, 3 percent; and other types, 47 percent. Disposition was class A, 0.5 percent; class B, 90 percent; and class C, 9.5 percent. These patients were more resistant to therapy, but did well symptomatically when reassignment was in prospect. Careful screening would have eliminated many from original assignment to combat organizations.

¹⁵ In many patients the symptoms referable to premilitary neurotic reaction patterns were absent when the patient was first evacuated from his unit and appeared only after the acute combat symptoms had diminished.

When the hospital was operating in a rear base section, this type of patient was drawn primarily from replacement depots. The usual forms of neurosis seen in civil life were represented: passive dependent persons; emotionally immature young soldiers; anxiety states, with neurocirculatory asthenia as the chief manifestation; conversion hysteria; and obsessive-compulsive types. The diagnostic groups were anxiety state, 25 percent; hysteria, 20 percent; reactive depression, 2 percent; and other types, chiefly with hypochondriasis, 53 percent. Disposition was class A, 4 percent; class B, 50 percent; and class C, 46 percent. About half of these patients were not originally suited for overseas duty.

CONSTITUTIONAL PSYCHOPATHIC STATES

Soldiers with constitutional psychopathic states constituted 10 percent of admissions when the hospital operated in a rear base section, as contrasted with 1.8 percent in a forward base section. Chronic alcoholism, sex perversion, criminalism, inadequate personality, and emotional instability were represented. Disposition was class A, primarily for separation from the service under the provisions of sec. VIII, AR 615-360 (now AR 615-368 and AR 615-369), 67 percent; class B, 28 percent; and class C, primarily because of concomitant disorders, such as episodes of psychosis or organic illness, 5 percent.

PSYCHOSES

Soldiers with psychoses totaled 13 percent of admissions to the hospital. Dementia praecox comprised 59 percent, of which more than half were of the paranoid type, and manic-depressive psychosis, depressed type, 11 percent. Psychosis unclassified included mental defectives and constitutional psychopathic states with psychosis, and a small group of pseudopsychoses that on further study were established as anxiety states with regression. Toxic psychosis following febrile diseases and drug or alcoholic intoxication was diagnosed in a few patients. Malaria was particularly significant as an etiologic agent in this group. Whether malaria produced an encephalitis with subsequent psychotic reactions, or whether the psychosis was purely toxic in nature, was not clear. Clinically the syndrome was not dissimilar from psychoses following febrile diseases, injuries, or even childbirth in civil life. In most patients there were no neurologic abnormalities. In one patient abnormal plantar reflexes persisted for weeks, and schizophrenic symptoms developed in the acute phase of a malarial attack, but continued for weeks after he had become afebrile and the blood was free of plasmodia. Among the alcoholic intoxications, acute alcoholic furor was most common.

TREATMENT

The primary objective of treatment was to restore the maximum number of soldiers to duty as quickly as possible. Disabling symptoms were removed first, and then the patient was assisted in re-establishing himself as a functioning member of a military body. Because the demands on the psychiatric personnel were so great, it became a matter of extreme importance to devise a plan of continuous treatment, even in the face of a relatively brief contact with each patient. Such a plan was successfully effected through a comprehensive program based on the simultaneous and coordinated use of individual and group therapy. Early establishment of rapport between patient and doctor was sought. Further contact was maintained on an individual basis as long as necessary and on a group basis by means of a continuous series of therapeutic and group training activities.

INDIVIDUAL THERAPY

Interview and psychotherapy. Effective individual therapy in the base section hospital demands a clear understanding of basic purposes. Attempts to treat the military patient by the usual civilian methods are not only time consuming but futile as well. The fundamental purpose of therapy in this milieu is the preparation of the soldier for duty, on as high a plane of effectiveness as possible. All other goals must be subordinated to this one. Individual goals and perplexities—happiness, difficulty in social relationships, psychosexual disorders, and somatic symptoms—must all be subordinated to the group purpose of defeating the common enemy. In view of this purpose and the usually severe limitations of time and material facilities, as well as the peculiar relationship of the soldier to the Army psychiatrist, treatment is necessarily different from that employed in civil practice. The psychiatrist must be prepared to interview, diagnose, and treat the average psychiatric patient all in a period of 30 to 40 minutes. Some patients must be seen oftener and for longer periods, but their number is necessarily limited and their eventual usefulness is low.

The initial interview is, therefore, as a rule the basic instrument by which the psychiatrist accomplishes all that is possible. During this period he must elicit a history that will permit an adequate estimate of the patient's basic personality and his present illness and make a reasonably thorough physical examination. The physical examination is necessary, not only to eliminate incidental nonpsychiatric disease, but, more significantly, to give a basis for reassurance. During this period the patient should be impressed with the military, yet sympathetic and understanding, attitude of the psychiatrist and with the scientific and thorough conduct of the examination. This reas-

insurance serves to establish a foundation for active therapy. The patient feels that he has found someone, even though an officer, who understands him, to whom he can express himself naturally and with little restraint, and who will try to help him.

A warning is necessary at this point. In the history, leading questions should be kept to a minimum. It is better to miss an occasional symptom of importance than to suggest a dozen to an anxious patient who is seeking new defenses against his overwhelming anxiety. Similarly, in the conduct of the physical examination, meticulousness, a virtue in civil practice is here definitely an evil. The psychiatrist should be able to make a positive diagnosis of neurosis by his study of the patient's personality and the nature of his symptoms, and he should be able to say with fair accuracy which of the symptoms result from the neurosis. That it is possible to do so is borne out by the experience of forward psychiatrists who were able to make very few elaborate physical examinations but nevertheless had an excellent diagnostic record.

At the base section hospital, therefore, the physical examination should be brief and systematic and directed more toward the detection of common disabling diseases or somatic manifestations of anxiety than toward the searching out of relatively common chronic diseases. The same approach is necessary in laboratory procedures. The detection of malaria and common epidemic diseases or basic structural defects is necessary; but for every patient helped by extensive laboratory work, particularly x-ray studies of the skull and the gastrointestinal tract, great damage is done to scores of neurotic soldiers.

Precision of thinking in the interview permits the omission of many procedures formerly thought necessary for diagnosis. The more purely therapeutic portion of the interview occurs at its close, when, usually in a period of 10 to 15 minutes, the patient is prepared for what faces him. The psychiatrist must first decide what disposition to make of the case. As a rule he can determine rather quickly whether the soldier is fit for return to combat or to limited service or whether he must be evacuated to the United States as a patient. Only a small number of men sent to the base section hospital can be returned to combat. Those evacuated to the zone of the interior are not likely to be military effectives for some time, and then only in a very limited capacity. The second and largest group, those going to limited service, are, therefore, the most important in our scheme of therapy.

Most of us found it desirable to inform patients of their eventual disposition as early as possible. This procedure not only gives the patient an immediate sense of security—if only because the decision is something fixed and definite—but also lays the basis for further

therapy. It impresses the patient with the power of the psychiatrist and allows an effective approach to the removal of hysterical symptoms. The decision is often received with gratitude by the patient, even if it is one he does not consciously desire, so marked are his fear of the unknown, his dislike of the uncertain, and his desire to be commanded and led. These neurotic traits of the patient are useful to the psychiatrist and should be exploited. Many objections to this procedure have been voiced and will be voiced in the future. For example: Is it not possible, by withholding decision, to return more of these men to combat? It is not. If anything, the reverse is true. As the psychiatric services were organized, no patient reached the base section hospital until he had been seen by two experienced psychiatrists in the division and in the forward psychiatric center. Those men who were finally culled out for evacuation to the base section were almost without exception no longer fit for combat. No therapy employed on this group of patients, so selected and evacuated, was effective in returning more than a small percent to combat as useful soldiers.

Furthermore, attempts at prolonged therapy, intended to return the neurotic soldier to duties of which he is not capable, have several undesirable results. Symptoms become worse and new ones appear as anxiety becomes intolerable. Concomitantly, conscious hostility appears as a result of anxiety, and in turn reinforces it. When strong hostility appears all attempts at therapy become ineffective, and few patients so affected can be reclaimed even for limited service. Withholding decision concerning disposition also means prolonged hospitalization, which is to be deplored, not only because every hospital day is a dead loss to the Army, but also because it is usually worse than a dead loss to the patient. Long periods of hospitalization may reduce the efficiency of any soldier, and in neurotic soldiers prolonged hospitalization for any reason leads to undesired results. Although the psychiatrist lacks authority to authorize final disposition of the patient, since disposition is almost invariably accomplished by a board of officers, the trained psychiatrist, familiar with the administrative policies of his own hospital board and commanding officer and with those of the Department, can in most cases predict the decision of the board and of higher headquarters. In doubtful cases it is wise to explain something of the procedure to the patient and to give him the date on which the board will make a decision.

After the completion of the first step in active treatment, the establishment of a basis of security for the patient in the knowledge of his fate, he must be prepared for the future. Primarily he must be told what his illness is and how it came about. The language used, the depth of the explanation, and the precise approach will depend on the patient's intelligence, his basic attitudes, his degree of insight,

and the severity of his neurosis, as well as the degree of responsibility he will face as the result of the disposition made of his case. Officers and noncommissioned personnel who will go back to positions of command should be given a thorough explanation. All patients must understand certain basic facts: that their symptoms are psychogenic and arise from certain situations or personality difficulties or both, and that there is no important somatic disorder and they are in every respect capable of performing certain duties. With many patients it is advisable to discuss in simple language the relationship of somatic symptoms to anxiety. The acute fear reaction of battle may be cited as an example.

Reassurance should be used freely, though sensibly. There are great advantages to be gained from telling a patient that he will be better, that he has suffered no permanent impairment of his ability to live happily, and that his illness is common and benign. Optimism is advisable when it is justified. It is dangerous, however, to depart from the known facts about neurosis. It is unwise to tell a patient that he will be well in a few days, that there is really nothing wrong with him, or that it is his "imagination." He senses that something is wrong, and this type of reassurance results only in loss of confidence. Guilt feelings should be actively combated, since they may lead to severe disability. The patient must be told that he is going to do a useful job; that he has suffered no disgrace; and that he is being removed from combat, not at his own wish, but because the Army finds him more useful elsewhere.

The final step in active therapy is exhortation. All soldiers with battle neurosis are discouraged, and many are disgusted or hostile as well. Cynical attitudes and confused thinking about the war are often present; they result from and predispose to neurosis. These factors must be combatted, not so much by lecturing to the patient as by an extension of the psychiatrist's own attitudes. A proper orientation of the physician himself is required, for no one with a fundamental disbelief in the war effort can be expected to impart an idea of the need for it to others. The personal interview is not the place for orientation, which takes more time than the psychiatrist can afford and is better done in groups.

The four major methods of active individual therapy are, therefore, disposition, explanation, reassurance, and exhortation. All are effective with these patients, most of whom will go to noncombat duty. For the average patient there is neither time nor need for further formal therapy. Abreaction is not included, because it usually constitutes part of the history-taking period. For occasional patients it is an important and useful method. Mild suggestion, combined with reassur-

ance, has some value, but any considerable degree of it is to be avoided except with hysterical patients. Such formal techniques as free association are generally too time consuming to be practical. The psychiatrist should, however, allow the patient free play in recounting his illness. In cases in which a relatively active technique is unsuccessful, hypnosis or hypnotic drugs are usually used. In the initial interview the patient should be allowed to be as spontaneous as possible and the psychiatrist should direct the interview as passively as he can. Limitations of time modify the possibilities in this respect.

Occasionally a question arises concerning the extent to which a patient should be exposed to a discussion of his battle experiences. It may be answered by the explanation given by Kardiner and others; that the patient contains his own safety valve. When the facts are intolerable he forgets them or refuses to discuss them; and in general it is best to respect this amnesia or reticence in first interviews, but it is always permissible, and even advisable, to ask the soldier what happened at the front and to allow him to carry on from there, at an emotional level that may be barely tolerable to him. In most patients this aspect of treatment is not difficult. Amnesias offer an important problem only if they are severe and are then best approached with the aid of hypnosis or drugs. Mild amnesias for 1 or 2 hours are fairly common. They are of no great significance and need not be intensively treated if the patient is otherwise reasonably fit to leave the hospital. Only if the amnesia is disabling and associated with marked anxiety does it demand treatment. Its chief significance is as a symptom of anxiety, and the underlying anxiety is the disabling factor.

Grave hysterical symptoms, particularly disabling somatomotor phenomena, require a somewhat different technique. They present an emergency and should be treated actively and intensively. Particularly, the symptom should be cleared up, and then the basic anxiety should be treated as in the typical anxiety state. A few hysterical symptoms may be removed in a simple interview by suggestion and reassurance alone, but most hysterical patients who reach the rear echelon require more strenuous measures. The severe anxiety states, generally seen in those with chronic personality disorders, and associated with depression, compulsive traits, and certain antisocial or schizoid phenomena, may require repeated interviews, largely for the sake of keeping the patient reasonably comfortable and happy. Most of these patients are returned to the zone of the interior. In such cases, too, immediately notifying the patient of his disposition is likely to be helpful. The interview examination and treatment of psychotic soldiers, whether the disorder is acute or chronic, are not very different from these procedures in civil practice.

Hydrotherapy. Tepid or cold wet packs are a useful form of therapy in certain types of case; for example, for patients with acute pseudopsychotic battle neuroses, those with severely disturbed anxiety states, and as in civil practice, for acutely disturbed psychotic patients. This method was of most value for the acutely disturbed or disoriented soldier who entered the base section hospital within a week of the onset of illness and demonstrated confusion, marked irritability, hallucinatory phenomena, and a cloudy sensorium. Patients who exhibited coarse tremors or similar adventitious movements reacted almost as well. The patient was placed in the pack, preferably in the disturbed ward, within a few hours of admission to the hospital. At the same time he was reassured and informed that he was safe and would not be sent back to the front, a promise that could safely be given in all these cases. Packs were continued for 2 to 3 hours and were given as often as three times daily. They were continued until the patient improved to the extent of regaining an intact sensorium and some degree of comfort, usually 1 to 3 days. This type of patient rarely if ever objected to the pack. Failure to improve, at least to some degree, was also rare.

When the patient had established good contact and became able to verbalize or to erect the common neurotic defenses against his anxiety, packs were no longer effective and were discontinued. Wet packs were not successful in the treatment of irritability, insomnia, and nightmares in patients in whom the disorder was more than 2 or 3 weeks old. Patients with chronic, fixed hysterical symptoms reacted to them badly or not at all. It was possible to replace drug sedation almost entirely by wet packs in the treatment of severe acute battle neuroses, with definite improvement in results. Good nursing care and supervision were necessary. Untoward reactions, such as hyperpyrexia, did not occur. They should be watched for, however, particularly in those few patients who struggle. The same methods and indications for wet packs were used as are in effect in civil institutions.

Narcoanalysis, the interviewing and psychotherapy of the patient while he is under the influence of a hypnotic drug, has been accepted as a useful tool in treating battle-induced anxiety states and hysterias.

Grinker and Spiegel¹⁶ developed this technique for use in combat cases as "narcosynthesis." The technique is simple. One of two drugs, sodium amytal or sodium pentothal, is generally used. Sodium amytal, 0.5 gm. in 5 cc. of water, is given intravenously over a 5- to 10-minute period. Occasionally the patient becomes confused or sleepy in the course of the injection. It is then discontinued before

¹⁶ Grinker, R. R., and Spiegel, John P.: *War Neuroses*. Philadelphia: The Blakiston Company, 1945, pp. 78-86. Also: *Men Under Stress*. Philadelphia: The Blakiston Company, 1945, pp. 389-406.

complete emptying of the syringe. Sodium pentothal, 1.0 gm. in 20 cc. of water, is given slowly until a light sleep is induced. The usual precautions for the intravenous use of barbiturate drugs should be observed. When the patient becomes too sleepy to cooperate, the intravenous injection of 0.5 gm. of caffeine sodiobenzoate is usually effective in restoring enough cooperation to allow continuation of the interview.

Various methods are employed after the narcosis is established. Some psychiatrists favor a dramatic technique, in which the patient is told that he is in the battle situation again and appropriate suggestions and noises are employed. If the method is successful the patient acts out a battle situation, often the one that included the traumatic incident. He dodges shells, recognizes fellow soldiers, and cries out with fear, while the psychiatrist takes the part of someone in the battle or a protecting person or friend. Another technique, which we used more commonly, is essentially a continuation of the initial interview, obtained from the patient while he was conscious. The hypnotic drug serves to remove or dull the patient's anxiety temporarily, makes possible the discussion of many factors too unpleasant to deal with in the completely conscious state, and brings to consciousness feelings and memories repressed because of their power to produce anxiety. Hostility and guilt often appear on the surface, and the patient's resentments may be far more openly expressed than in the conscious state.

In conversion hysteria the technique is slightly different. In this instance the technique is used largely to dispose of some gross hysterical symptom, such as paralysis. In favorable cases the drug suffices to overcome the patient's resistance to cure, possibly by temporarily dulling the underlying anxiety. Occasionally dramatic relief of paralysis and mutism is effected. In all patients the technique is useful for the rapid elucidation of underlying dynamics. It is frequently possible to outline the structure of a neurosis in an hour, a task that might otherwise require many sessions. Thus the psychiatrist dealing with a severely ill patient is enabled to make a decision rapidly and with some accuracy and also to gain some clues concerning further therapy.

The usefulness of narcoanalysis as an investigative measure and a means of clearing up conversion symptoms is undeniable. It is rapid, harmless, and fairly reliable. Whether it aids in the relief of anxiety states, however, is much less certain. It has been used for the treatment of both chronic and acute anxiety states resulting from combat. In a certain number of patients it brings about some relief of anxiety or other symptoms, but the course of the disease is rarely influenced

significantly. Although patients who are incapable of duty are rarely made capable of it by narcoanalysis, those who are improving slowly may experience some increase in the rate of improvement. The method aids indirectly in increasing the psychiatrist's understanding of the patient. It does not furnish insight to the patient, since there is an almost complete amnesia for the session.¹⁷ The procedure is of value in the diagnosis of psychoses, particularly in catatonic and mute patients, since it is possible to obtain an idea of the patient's thought content. In conducting sodium amytal or pentothal interviews with these patients, excited, even violent, reactions should be anticipated. When the initial interview is complete and the patient's progress is unsatisfactory, narcoanalysis should be employed. It should be used in all cases of conversion hysteria that do not clear promptly with reassurance and suggestion. In general, repetition of the narco-analytic session has not been found useful, except in hysteria. It is best avoided altogether in anxiety states of mild or moderate degree in which the residual anxiety does not interfere with prompt disposition on a limited duty status.

Hypnosis. The indications for and results of treatment by hypnosis are similar to those described under narcoanalysis. In skilled hands hypnosis is equally effective, particularly in hysteria, and post-hypnotic suggestion is occasionally useful in relieving such symptoms as insomnia. The process of abreaction or ventilation under hypnosis is also similar to that under narcoanalysis. Not all patients can be hypnotized. Although some patients develop considerable resistance to the technique after the first two or three sessions, in patients requiring active therapy hypnosis may be worth a trial. The technique is similar to that used in civil practice.

Chemotherapy. During the early stages of the North African and Sicilian campaigns heavy sedation, generally by barbiturates, was used in both forward and rear areas for treatment of acute anxiety states. The results obtained in base section hospitals did not justify the continuation of this practice. It then became our policy to give sedatives to neurotic patients only in rare emergencies. Wet packs were found more effective in the treatment of acutely disturbed or pseudopsychotic patients. Sedatives were ineffective in treating insomnia and irritability in the more chronic neuroses, and their effects were often pernicious. After several weeks of treatment with barbiturates patients often demanded more drugs, and there were occasional cases of habituation and drug stealing. Sedation has a limited place

¹⁷ Editorial note: Most of us do not agree with this statement. We have found that a complete amnesia for the session is unusual. (See discussion in the section on "Psychiatry at the Army Level.")

in the treatment of acute neuroses in forward areas but may be discarded entirely as a routine treatment in rear areas. Patients who have not received sedatives before will not ask for them, and those who have had them before should be informed promptly that these drugs are no longer useful and will not be prescribed. To a less extent the same principle holds for all symptomatic therapy. Such analgesics as aspirin and acetophenetidin are of little value in the headaches experienced in battle-induced neuroses, and their use as placebos is rarely indicated. Furthermore, the reasons for withholding medication should be explained to the patient.

Certain treatments were found useful in special cases. In headache or confusion following injury to the brain—rather rarely seen in our hospital—dehydration afforded temporary relief of symptoms. It was accomplished by administering 30 gm. of magnesium sulfate by mouth for one dose and 0.25 gm. of caffeine sodiobenzoate hypodermically at half-hour intervals for six doses. This procedure was never effective for neurotic headaches. It may therefore be of some value in differential diagnosis. In establishing a diagnosis when epilepsy was questionable it was sometimes considered desirable to produce a seizure if possible. A hydration procedure was employed, requiring repeated doses of pitressin and water over a 36-hour period. Reactions were unpleasant but not dangerous, and occasionally definite help in diagnosis was obtained by the precipitation of a grand mal seizure.

Amphetamine sulfate was given in selected cases of neurosis. Our observations do not justify any definite statement concerning its therapeutic value, except that severely anxious patients occasionally tolerated large doses of the drug. In the treatment of certain acutely disturbed patients, particularly those suffering from acute alcoholic furor—a form of pathologic intoxication not uncommon in the Army—paraldehyde or sodium amytal, administered intravenously, was found very useful. This drug was given promptly but slowly in sufficient quantity to produce sleep. The results were uniformly good. The patient recovered in a few hours, with good contact and normal behavior. These drugs were used when necessary for the handling of severely disturbed psychotic patients on admission or when they had to be transported some distance and restraint could not be applied. Dauerchlaf, prolonged sleep under profound drug narcosis, was not used.

Electroshock therapy. The use of electroshock therapy, begun at our hospital in January 1914, proved to be one of the most useful instruments in military, as in civilian, psychiatry. The treatment of psychoses, schizophrenia, and the affective states was one of the major problems of the base section psychiatric hospitals. Facilities for

handling severely disturbed psychotic patients were rarely adequate in overseas hospitals, particularly on a mobile front, and these patients often had to be transported long distances. Moreover, owing to inevitable delays in evacuating patients to zone of interior hospitals, specific treatment was sometimes unduly delayed. Electroshock treatment largely solved these problems and revolutionized treatment of psychotic patients in the theater of war. The technique used was that described by Kalinowsky.^{18 19 20} The Offner machine which furnishes a high frequency current, 7,000 cycles, of up to 800 ma. was used. Ordinary American generator current (alternating 100 to 120 volts) was used. It was also found possible to employ small portable generators that furnished a similar voltage. Foreign, high voltage current, such as the British and Italian, could not be used. The machine proved to be simple and reliable in operation and was thoroughly satisfactory.

A team of 8 to 10 enlisted men and one nurse assisted the physician in administering the treatment. Six enlisted men held the patient, two each at legs, hips, and shoulders, to prevent excessive movement of the body, while the physician held the lower jaw in place over a rubber gag. A bed with a fracture board and mattress and a pillow under the small of the back made up the rest of the equipment. Patients were started routinely with 500 ma. for 0.3 sec., but a few required up to 800 ma. for 0.5 sec. When petit mal seizures occurred the patient was given a second shock immediately. If the second shock was ineffective the current was increased 50 to 100 ma., and a third shock was given. In every case a grand mal seizure was produced before the patient left the table. It was found that convulsions could be produced with 500 ma. for 0.1 to 0.15 sec.

Treatments were given three times weekly to most patients, but oftener if they were excited, suicidal, or destructive. For these seriously disturbed patients it was found useful to produce two or three grand mal seizures within the first 24 hours and to continue daily treatments until the acute emergency had subsided. The usual routine of triweekly treatments was then followed. This procedure was particularly effective in avoiding suicide, self-mutilation, and injury to personnel and equipment. The number of treatments given varied with the type of disease and the patient's progress. Schizophrenic patients were treated as long as they remained in the hospital—rarely more than 4 to 6 weeks—for a total of 12 to 20 grand mal seizures.

¹⁸ Kalinowsky, L. B.: Electric Convulsive Therapy in Psychoneuroses, *M. Ann. District of Columbia*, 14: 70-75, Feb. 1945.

¹⁹ Kalinowsky, L. B.: Experience with Electric Convulsive Therapy in Various Types of Psychiatric Patients, *Bull. New York Acad. Med.*, 20: 485-494, Sept. 1944.

²⁰ Barrera S. E. and Kalinowsky, L. B.: Electric Shock Therapy in Mental Disorders, *M. Physics*, pp. 335-340, 1944.

Depressed or manic patients were given up to 8 treatments if there was symptomatic relief. Otherwise treatments were continued thrice weekly. Patients with other psychoses, reactive depression, or neurotic states were given 6 to 8 treatments, or less if the symptoms disappeared.

Certain requirements and safeguards are essential. Treatments must be given by a psychiatrist who is thoroughly familiar with the electroshock technique. Patients must have had a careful physical examination and the required x-ray of the spine and an electrocardiogram, and should be approved for treatment by the chief of the neuropsychiatric service. In our group of several hundred cases no physical contraindications to treatment were found, except for one soldier with recent fractures of the forearms sustained before admission to the hospital. Malaria, under control of atabrine or quinine, does not interfere with therapy. Heart disease and chronic bony pathology were encountered so rarely in overseas personnel that they offered no problem in our series. Almost all patients, therefore, who required treatment on psychiatric grounds could be treated without fear of complications. Except in cases of organic psychoses, all suicidal, destructive, excited, or seriously confused psychotic patients were treated. The group suited to treatment included catatonic and paranoid schizophrenic, manic, and severely depressed patients. All such patients were treated promptly and intensively.

Most schizophrenic patients were given electroshock treatment, particularly if the symptoms were of recent onset or if such symptoms as refusal to eat and soiling were present. All patients with psychotic depressions were treated. Those with unclassified psychoses were treated if they failed to improve after a week or two of observation, unless the illness was associated with an organic disease that in itself constituted a contraindication. Patients with organic or toxic psychoses were treated only if they were suicidal or excited to a degree that endangered themselves and others. Reactive depressions of a neurotic type were treated if there was danger of suicide. Only a small proportion of patients with combat-induced neuroses were given electroshock treatment; that is, only those severely ill patients who continued to have severe depression, marked abnormalities of behavior, paranoid trends, or severe hallucinatory phenomena. A few patients with rigidly fixed hysteria were also treated.

The results were highly satisfactory. Severely disturbed patients showed the most dramatic improvement. Two to 5 treatments resulted in marked improvement in almost every patient with restoration of general health and normal behavior and loss of confusion and suicidal trends. Many patients who had entered the hospital severely disturbed and required restraint could be transferred to open wards a

week following admission. There was no need for tube feeding, restraint, or sedation. Table VI summarizes the improvement for one 30-day period. Results in the treatment of psychotic depressions were equally good. After 3 to 8 treatments the mood and behavior of these patients became reasonably normal. Immediate relapses were unusual. In most paranoid schizophrenic patients results were good, but not so spectacular as in the more acutely disturbed patients. Their behavior improved and the more bizarre symptoms generally disappeared, but there were no complete remissions in the relatively brief period of observation. Patients with neuroses varied in their response to electroshock therapy. As a rule those with severe reactive depressions improved rapidly. Up to a point there was rapid improvement in those who had severe neuroses, with abnormalities of behavior or schizoid characteristics, after 4 to 8 treatments. These patients lost their paranoid trends, hallucinations, and bizarre behavior, but retained sufficient anxiety and irritability to render them unfit for duty in the theater of operations. All these patients became well enough to be treated on open wards.

TABLE VI

Improvement in a 30-day period after use of electroshock therapy

| Treatment | Number in 30-day period before electroshock therapy | Number in 30-day period after electroshock therapy |
|-----------------------------------|---|--|
| Wet packs..... | 40 | 6 |
| Doses of sedative medication..... | 127 | 8 |
| Tube feeding..... | 3 | 0 |

Electroshock treatment accomplished much beyond its benefit to the individual patient. Thus it made possible the treatment of psychotic patients with reasonable safety without elaborate physical facilities. It cut destruction of property and injury of patients and personnel to a minimum. It made evacuation of patients far easier. It markedly reduced the use of drugs and restraints. Its use enhanced the efficiency and morale of ward personnel, for it demonstrated to personnel untrained in psychiatry, and often indifferent to it, the possibilities and favorable results of specific treatment.

Complications were rare and unimportant. No deaths could be ascribed to the treatment. Dislocation of the jaw, easily reducible, occurred twice. There were no fractures of the extremities, and spinal fractures were never clinically evident. Muscular pains were frequent but unimportant. Because of the temporary amnesia associated with

the treatment, patients developed no fear of it and often spontaneously expressed their sense of benefit. After a prolonged series of treatments mild memory defects occurred, but they were reversible and never severe. The favorable emotional response to the treatment was ascribed to our policy of avoiding petit mal reactions, which do cause fear and discomfort associated with therapy.

GROUP THERAPY

Training program. The smooth operation of a large psychiatric hospital in which the majority of patients are ambulatory requires the coordination of all departments toward a unified therapeutic effort. Of primary importance is the morale of the patients. The very nature of the disorders that result in the patient's hospitalization contributes to discouragement, selfishness, insubordination, and irresponsibility. These attitudes are contagious. Close association of a group of patients tends to infect all with the discontent of a few. Resentment toward authority must be understood by the staff as symptomatic of psychiatric disturbances. Manifestations of hostility require a tactful approach by hospital personnel. Facilities for isolation for limited periods are therefore important in the treatment of these patients.

In group therapy a series of educational and rehabilitative activities were provided for all patients. The commanding officer of the detachment of patients was in charge of the program, which was developed in collaboration with the chief of the psychiatric service. Activities were conducted in sections devoted to physical conditioning and educational recreation. All patients were assembled each morning after ward rounds. At 9 a. m. they were marched to a parade ground where calisthenics, close order drill, and competitive sports occupied the next 2 hours. Between 11 a. m. and 2 p. m. their time was their own. A rest period after lunch was encouraged. Formation was at 2 p. m., after which the section was divided into smaller groups for special activities: handicrafts and art classes; lectures by members of the hospital staff on cultural and current topics, given at scheduled periods; hobbies, dramatic or musical; and physical activities and competitive sports. The usual orientation lectures and films were provided through the information and education officer. The Red Cross conducted a weekly town hall forum. Periodically groups supervised by the chaplain were taken on sight-seeing tours to points of interest in a nearby city.

Participation in the actual work of the hospital was considered a part of each patient's treatment. An employment service was maintained to select and assign patients to various departments of the hospital, according to their skills and interests. The patient's efficiency at work was used as an index of his rehabilitation and preparedness

for assignment. An effort was made not to prolong the hospitalization of a patient merely because of his usefulness in the work program. The desirability of shortening the hospitalization period of each patient was constantly stressed. Our data indicated that a period of 1 to 2 weeks in the base section hospital was sufficient to render fit for limited duty a patient capable of quick recovery. Most patients who could not improve sufficiently to be ready for assignment within this period were sick enough to require evacuation to the zone of the interior. There were not many such men in the group who had acute combat-induced neuroses.

Psychotherapy. The group activity program led to experiments in group psychotherapy. Since no one technique was considered better than another, each psychiatrist devised his own. Our interest in group therapy was first stimulated by experiences in the North African campaign, when acute psychiatric battle casualties were treated in an open ward of an evacuation hospital in full view of 20 other patients. There was no privacy during the examination interview or any phase of narcoanalysis. Any abreaction produced in the patient produced a response in all the other patients, who were attentively observing the procedure. There were no unfavorable reactions in any of these patients who were involuntary participants in the proceedings.

Patients were introduced to group orientation in psychodynamics shortly after admission to the hospital through a series of four lectures given by the psychiatric staff on "What is psychoneurosis?" "How does nervousness cause physical symptoms?" "Attitudes: how do they affect patients?" and "What adjustments must the soldier make?" Each lecture, together with a question period, generally exceeded an hour. Meeting in this way, the men identified themselves with one another in that all were patients with similar types of illness and most had had similar military and battle experiences. In simple language they were given an interpretation of their illness, the prognosis for it, and methods of treating it. The patients' responsibility in the treatment program and their role as soldiers in a war theater were emphasized. This type of orientation showed immediate results in the response of patients to demands made on them and improvements of their response to individual therapy from the ward psychiatrists. The general program of hospital activities and procedures was outlined and the reasons for them were explained.

Subsequently each psychiatrist gave informal lectures to his own group of patients, with whose histories he was familiar and with whom he had already established a therapeutic relationship on an individual basis. The lectures were in the nature of discussions extending the material previously presented. Psychoneurosis and the dynamics of its production were explained in some detail. The examples were

limited essentially to hysteria, anxiety states, and the development of various psychosomatic illnesses. The talks were illustrated by examples taken directly from the group. Discretion was used to avoid embarrassing a patient, and material from previous hospital cases was used freely. The lectures were followed by forums. The interest stimulated in the group could be gaged by the number of questions asked. Some forums were devoted to catharsis of the great amount of repressed hostility in these patients, which was clearly manifested by their irritability and tended to become diffuse and displaced and to give rise to psychosomatic complaints. Expression and examination of this emotion in a group proved beneficial. The desire of the patient to become well was stimulated when he saw himself as one of a group of neurotic patients, with whom he freely discussed the nature of the neurosis, and when his attention, like that of the others, was diverted to the psychic origin of his complaints.

Another technique of group therapy was developed in art classes conducted in small groups. An instructor furnished by the Red Cross supervised the classes. The psychiatrist, working with selected groups of patients, asked them to draw or paint as they chose, and afterward discussed the production of each patient in the presence of the others. Using a free association technique, he was able to elicit material representative of the dynamics underlying the patient's symptoms. This method led to free group discussion, with obviously beneficial results. The work of the American Red Cross, though its primary function was to provide recreation, comforts, and personal social services, had important therapeutic value as well. The arts and crafts program was directly supervised by the recreational worker, who secured supplies from many sources and acted as instructor. Such programs as community sings, quiz programs, theatrical productions, and playing in a band, in all of which the patients participated, helped them to extravert themselves. Red Cross facilities, used at times that did not conflict with scheduled classes, kept patients out of their wards and beds.

The social service worker also assisted in a therapeutic capacity. At all times we emphasized treatment and rehabilitation of patients while they awaited evacuation to the zone of the interior. The morale of these men, faced with readjustment to their new status as failures being removed from the theater of operations or soldiers discharged from the Army because of psychiatric disabilities, was generally low. They were preoccupied with the problem of what lay ahead of them and how to accept it. They needed preparation to face their families and friends and to readjust to civil life in the event of a medical discharge, as well as information concerning rehabilitation programs available to them in and out of the Army. The social worker assisted

them with these problems. Armed with information about facilities in the States and the provisions of the "GI bill of rights," she was in a position to advise them. More important, in informal gatherings in the Red Cross Club she was able to discuss with patients their prospects, attitudes, fears, resentments, and needs. Since she was a civilian talking to soldiers, there was in these discussions none of the constraint often felt between patient and medical officer. The value of this phase of group therapy was unquestionable.

Regardless of the approach or technique in such a hospital, some form of group organization and approach is necessary. Through the group sessions it was possible to strengthen the doctor-patient relationship. The number of patients and the limited time available for therapy made it impossible to see the patients individually as often as might be wished. Group therapy was one way of overcoming these limitations. It enabled us to maintain continuous contact with large numbers of patients being returned to the zone of interior in whom interest might otherwise have been lost or who might have been neglected while awaiting evacuation.

COMMENT

Validity of statistics. Conclusions drawn from statistical data of hospitalized cases must take into account the location of the hospital and its functional relationship to other hospitals at any particular time. Acute cases, including many with relatively good prognosis, are received in advanced base sections; chronic cases, with a high incidence of those with poor prognosis, reach rear base sections. It is impossible to deduce conditions in one base section from those in another. Statistics must be interpreted with great care, for data of this type depend upon a large number of variables, including the conditions prevailing within the base section and also those prevailing in the echelons ahead and behind it, personnel policies, transportation facilities, and theater demands, as well as the immediate tactical situation.

Morale is relatively high in acute cases occurring in fresh troops. It tends to be low in veterans who have seen much fighting, particularly when their symptoms have reached a chronic state. Lack of orientation to the war is a serious factor. An appallingly large number of soldiers had no sense of unity with their national group or even with their immediate military organization. This lack in the first instance was usually caused by inadequate indoctrination, and in the second by poor discipline and command. Lacking both a sense of responsibility with regard to war objectives and the security that comes from identification with a company or regiment, the more dependent soldier in times of stress can turn only to home as a source

of security. Nostalgia is, therefore, not merely the result of a drive for secondary gain, but, even more, an integral manifestation of the neurosis itself. An interesting and clinically significant behavior disorder, which we called "psychopathic reactions due to poor morale," appeared in 2 percent of all types of convalescent patients. These patients, who had previously exhibited good adjustment and attitudes in civil and military life, during hospitalization after long combat showed psychopathic traits of irresponsibility, selfishness, insubordination, and indifference to the war effort. This reaction was seen also in many neurotic patients awaiting shipment to the United States.

Recurrent cases. Few patients who reached a base section hospital ever again successfully performed in combat. Arbitrary reassignment of such patients to combat almost invariably resulted in a recurrence of their symptoms. Such recurrences constituted 12 percent of admissions to the base section psychiatric hospital in an advanced base section. Analysis of the amount of duty these patients performed after leaving the hospital the first time indicated that those returned from the advanced army psychiatric unit remained in combat for about 6 weeks before they were incapacitated by recurrent symptoms. Those returned from base section hospitals remained with their units an average of not more than 3 weeks, most of which was spent in noncombat situations. In the rear base sections recurrent cases were chiefly soldiers who had failed to perform limited duty in a noncombat area. These recurrences developed when: (1) unassignable patients were sent to replacement depots and developed exacerbations of symptoms while awaiting assignment; (2) unit commanders were unwilling to tolerate the decreased efficiency and adaptability of such soldiers; and (3) there was a recrudescence of symptoms under provoking circumstances, such as improper assignment or exposure to unanticipated dangers.

Organic disease. Reluctance to make a diagnosis of neurosis until all organic disease has been ruled out results in lengthy hospitalization and preoccupation with detailed studies and laboratory reports. Internists are likely to forget that psychiatric diagnosis should be made on positive evidence rather than by exclusion. Particularly is this true in functional gastrointestinal disturbances. Many of our patients reported that they had been subjected to repeated gastrointestinal x-ray series, proctoscopic examinations, and even gastroscopy. Numerous studies in this theater indicated the nature of functional gastrointestinal syndromes; usually, a differential diagnosis of peptic ulcer, for example, could have been made on clinical observations alone. Similarly, in anxiety states with neurocirculatory symptoms electrocardiographic studies supplied no useful information but tended to fix the somatic pattern in the neurotic patient. Patients

with backaches and motor disturbances of the extremities were subjected to unnecessary physiotherapy for weeks, with deleterious effects on their neurotic disorder. All such procedures tend to crystallize fixed, hypochondriacal reactions in psychoneurotic patients. Far more harm is done to them than to those rare patients whose organic conditions are missed by limiting laboratory studies to a minimum. Of all patients in the base section psychiatric hospital, 6 percent were eventually given a diagnosis of organic disease, such as muscular atrophy, cerebral concussion, herniated intervertebral disk, sciatica, and arthritis. Total figures indicated that 2.5 percent of all patients were erroneously diagnosed as psychoneurosis. Considering the demands on hospitals to evacuate patients at the height of a campaign, this incidence of error is inconsequential. The major function of all military medical installations is to return patients to duty in the shortest possible time.

Advantages. The base section psychiatric hospital has the advantage that: (1) it provides greater efficiency in handling a large influx of acute battle casualties,²¹ (2) it provides better segregation of patients, making for formulation of a uniform program and less emphasis on hospital atmosphere, (3) it can react quickly and smoothly to changes in policies laid down by higher commanders and consultants,²² (4) close association of a group of specialists is important in the field of psychiatry since this facilitates exchange of ideas and experiences,²³ (5) the psychiatrically oriented hospital disposition board can act promptly and efficiently, with good insight into the prognosis of psychiatric casualties, (6) there is proper orientation of such accessory agencies as the special services, the Red Cross, and the information and education program the functions of which can be coordinated by a single administrative officer such as the commanding officer of the detachment of patients, (7) better liaison with the replacement command is provided since the function of the psychiatrist, more than that of any other medical officer, does not end when the patient leaves the hospital,²⁴ (8) since it is smaller and does not require massive equipment, it can be moved within the theater much

²¹ It was demonstrated that the base section psychiatric hospital could dispose of 1,500 patients a month. Few general hospitals could efficiently dispose of 200 neuropsychiatric patients.

²² Making similar changes throughout the neuropsychiatric sections of general hospitals in a base section requires more time and is much more cumbersome.

²³ Observation of the methods and results of others stimulates self-criticism, curiosity, and flexibility. It is possible also to share such techniques as hypnosis, the Rorschach test, and electroshock.

²⁴ Knowledge of replacement needs, opportunities, and policies is necessary in making appropriate disposition of patients. Specific recommendations for reassignment of a practical type can be furnished by the hospital disposition board through close liaison with the replacement command. Advice of a professional type offered to the replacement command may assist the command in formulating its policies with reference to reclassified replacements. These activities materially reduce the recurrence rate.

more freely than a general hospital with an equal number of psychiatric beds, and (9) the large number of psychiatric patients available provides an opportunity for research.²⁵

REQUIREMENTS

Policy. A clear-cut policy concerning the function of the base section psychiatric hospital must be formulated. It must be flexible enough to permit adaptation to changing tactical conditions. Its primary function is to treat all soldiers with battle-induced psychiatric disorders who reach the base section. Its optional functions are to treat psychotic patients; to operate an outpatient department, with particular reference to reclassification of personnel; and to institute a training program (school of military neuropsychiatry) for personnel. Decision as to final disposition of patients should be a function of the professional staff of the hospital.

Echelon of evacuation. Patients should reach the base section psychiatric hospital directly from corps or army psychiatric units without first passing through station or general hospitals.

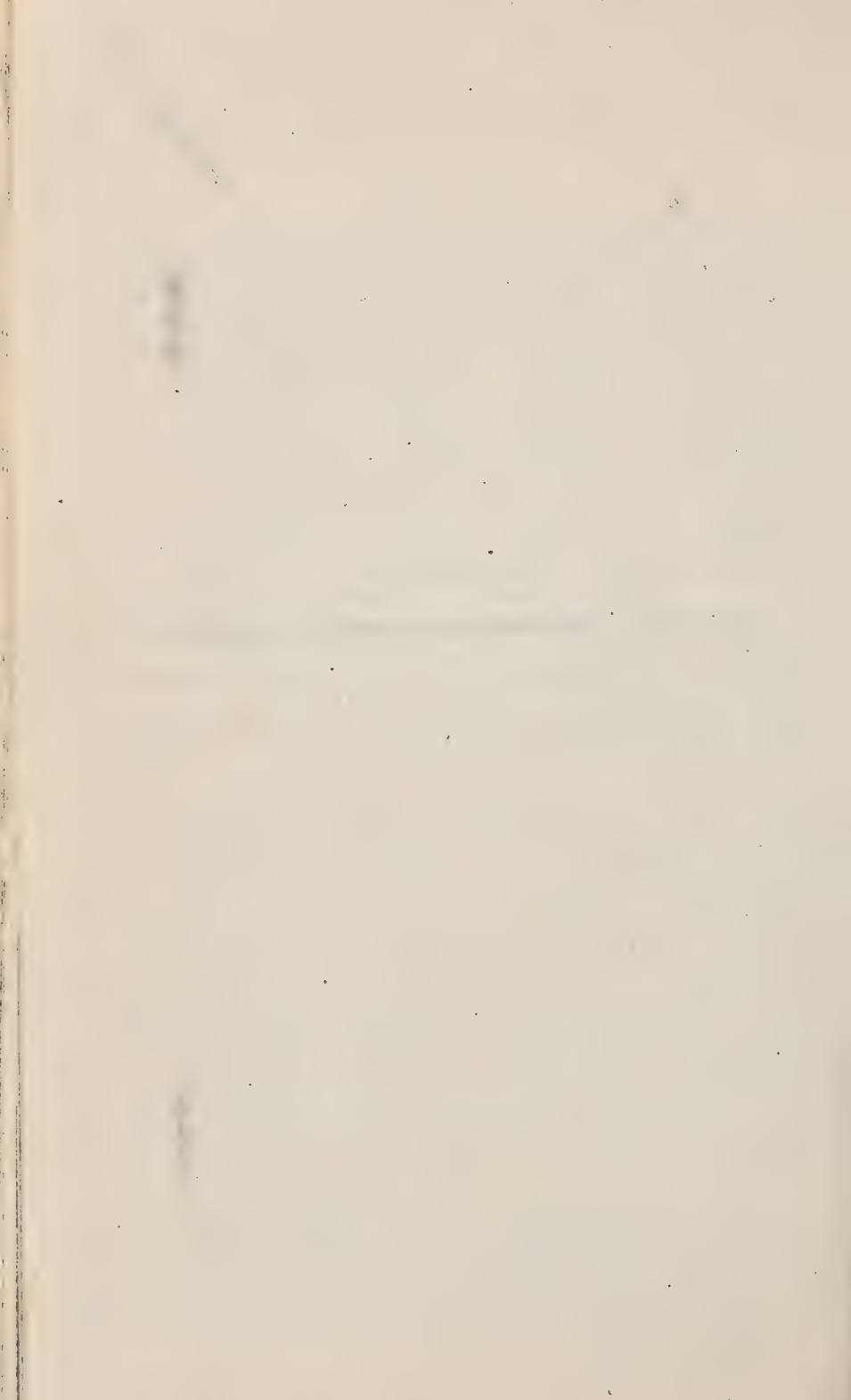
Administration. The base section psychiatric hospital should be an independent unit with sufficient mobility to move when necessary to the most advanced base section. If it is attached to a general hospital, the attachment should be for administrative and professional purposes not supplied by the unit itself, and sufficiently loose to permit mobility.

Close liaison with the replacement command is necessary in order to keep the hospital informed of current replacement policies and to keep the psychiatric problem clearly before the replacement command.

The *regular staff* should be able to care for 500 to 750 patients. A supplementary staff should be available for expansion when necessary. The supplementary staff need not be psychiatrically trained, for training can be given during the working period. A medical consultant is needed. Other consultants are optional, depending on the availability of general and station hospitals for consultative purposes. If the psychiatric hospital is attached to a general hospital, x-ray, laboratory, and dental facilities can be furnished by the general hospital. Enough line officers to direct a training program should be provided. The Red Cross should have trained psychiatric social service workers on the staff. An occupational therapist is desirable.

²⁵ Some of the studies undertaken at this hospital dealt with the testing of the validity of the Rorschach test and the Cornell selectee index test. Studies were made of hysterical amblyopia, the effects of amphetamine sulfate on neurotic patients, the value of electroshock therapy in various conditions, and the usefulness of hydrotherapy in acute battle neuroses. Experiments in the techniques of group therapy were undertaken, and the value of treating soldiers awaiting evacuation to the zone of the interior was demonstrated.

SÉCTION II
PSYCHIATRIC DISORDERS OF COMBAT



Anxiety-Depressive Reactions After Prolonged Combat Experience—the “Old Sergeant Syndrome”

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The mechanisms and dynamics of the neurotic battle reaction have been reported in detail in recent years, but little attention has been paid to the means by which the normal soldier develops defenses against the anxiety produced by the combat environment and, more particularly, the manner in which the normal soldier becomes emotionally incapacitated under stress. Since the most striking cases were found among noncommissioned officers who were old in combat experience, we came to refer to the psychiatric disorder of this group as the “old sergeant syndrome.” This syndrome, a fairly consistent constellation of attitudes, occurred in well-motivated, previously efficient soldiers as a result of the chronic and progressive breakdown of their normal defenses against anxiety in long periods of combat. It was seen only in those divisions that had experienced prolonged battle commitments without relief. The men in this series had been in continuous combat for periods up to 79 days, and the division had had more than 400 days of combat experience.

Although cases were observed among engineers and artillerymen, 90 percent of the men who developed this reaction were infantry soldiers. Those we saw from March through November 1944 were mostly veterans who had fought through both the Tunisian and Italian campaigns with excellent records. They constituted the nucleus of the fighting elements of their units and were considered by their officers to be the backbone of the Infantry—the key men, the “old reliables.” A large number had received citations, awards, and medals for outstanding conduct and devotion to duty. Many had been decorated with the highest honors their country could bestow on them. When they were evacuated for psychiatric disturbances the matter became of real interest to all from the company commander to the commanding general of the division, for these men were among the best and most effective of the trained and disciplined combat infantry soldiers. These soldiers eventually developed abnormal tremulousness, sweating, and a tendency to be the first to get in and the last to leave a foxhole. They became useless to their unit

and had to be removed from the battle zone, even though many of the symptoms that occurred under fire disappeared rapidly when they were removed from shelling.

The men themselves could not adequately explain the cause of their behavior. "I guess I've just had too much of it," they said. The terms "burnt out," "worn out," and "beat up" were often applied to them. They expressed their philosophy in terse profanity and with resigned patience born of endless waiting before attacks: "I'm just sweating it out," or "It's no use trying to beat the percentage," or "I'm waiting for the one with my serial number on it." They continued to endure the horrors of battle, sometimes only partially effective, until they became incapacitated by anxiety and its concomitant impairment of judgment. The ability to make quick decisions involving the lives of others was lost, and with it their self-confidence. Thus a vicious cycle between anxiety and inability to accept responsibility was developed.

The manner in which they were evacuated was directly related to this cycle, for despite their deficiencies they tried to continue with their duties. As a result they were more often than not ordered to the battalion aid station by their company commanders or platoon leaders. Medical officers rarely saw them on routine sick call. When examined by the division psychiatrist they almost always had a written statement attached to their emergency medical tag. A typical report read: "To Battalion Surgeon: Sergeant Smith has been in my company for 13 months. He has fought through both campaigns and has been an excellent soldier, but, he has become so nervous of late that he is of no use to the company. We have no place in our service train for him, as we have already filled our kitchen and motor pool with others like him. I would appreciate it if you could evacuate him as he is unfit for combat in my opinion."

During the battle of the Anzio beachhead, when the majority of these men were seen, an attempt was made to return a substantial number to combat. In all cases there was a recurrence within 3 combat days. Some of the men returned to their units endured less than 10 hours of combat despite their sincere attempts to remain on the line, and were re-evacuated with acute severe anxiety states. These men were either original members of the division or had been with it for an extended period. Their average overseas service was 23 months. Some had had 32 months overseas. They were often the last remaining "old men" in their platoon or company. An unpublished survey of a veteran division showed that after 210 days of combat only 12 percent of the original members of a rifle platoon were still with their units. These men were survivors in the true sense of the word. In many instances a soldier was the only one to emerge from

a trap or one of the few left from a decimated company. One staff sergeant stated that he had had 8 platoon leaders, 3 company commanders, and 3 battalion commanders in 6 months. Because of their experience, they were acutely aware of their probability of survival, and even those who had not already been wounded had lost any feeling or illusion of personal invulnerability. They possessed a high sense of discipline and duty, and absence without leave was a rarity among them.

Sixty percent had responsible duties as squad or section leaders, platoon guide, or platoon or first sergeant, or held commissions. One reason for their having such positions was their length of service, but the main factor, according to their commanding officers, was that all possessed qualities of leadership. The privates had all been offered ratings but had turned them down because they preferred freedom from responsibility to rank. A small proportion had been demoted at their own request because they felt guilty in holding a rank while unable to carry its responsibility. Another impressive feature of these men was their devotion to their unit. They felt an obligation to train new replacements and teach them how to take care of themselves in combat. They had a fatherly concern for the green men under them, more, it appeared, in the interest of military effectiveness than from true affection. They did not make friends easily, perhaps because they feared to cause themselves pain on losing them in combat. As a result they were sometimes unjustly accused of being callous taskmasters and slave drivers. The majority of the "old sergeants" strongly identified themselves with the group of men with whom they had fought several battles. This consciousness of kind was a bond forged in fire by joint survival. Perhaps for this reason they often spent hours recounting their battle experiences to one another. The reassurance thus given that they had survived—that they were actually still alive—produced in them a certain amount of gratification.

The combat life in this series averaged 180 to 240 combat days. The shortest aggregate combat time was 150 days; the longest, 350 days. Although most of the men stated at first that there was no definite time at which they had begun to feel severe anxiety, close questioning almost always revealed an acute episode, followed by increasingly severe battle reactions. No patients were seen immediately after the first break in tolerance to anxiety. All reported several similar episodes that occurred subsequently, but prior to their evacuation. A wound incurred months previously was often the precipitating factor. As a rule these men had had several rests in kitchen areas without effective relief of symptoms. When interviewed in the safety of the clearing station they were calm and showed none of the vigilance they experienced in combat. We saw but one true startle reaction in well

over a hundred such patients. The absence of hysterical manifestations and severe psychosomatic complaints was remarkable. Stress dyspepsia was recognized as such, with unusual insight.

The most characteristic features seen when they reached the division psychiatrist were depression and loss of self-confidence. The depression was mild but persistent and was accompanied by discouragement and self-incrimination, expressed by such a remark as: "I feel like a heel, leaving the outfit." There was much variation in individual awareness of the loss of self-confidence, but it was always present to some degree. A common statement was: "I can't send my men out where I can't go myself." This feeling, plus the accompanying fear of responsibility, resulted in a lowering of combat efficiency to a point where the soldier might actually become a liability to his unit. The case of a 29-year-old first sergeant of excellent capabilities, who was evacuated for "exhaustion," illustrates this tendency. Although he had previously been extremely careful with secret papers, he had carelessly left his company records strewn about a command post where they had been picked up by a British patrol. Despite diminution of efficiency, as shown by this patient, these men displayed no loss of motivation. Often they continued, sometimes desperately, in a job they had become incapable of handling. Doing so led to severe conflict and guilt feelings, with the result that their anxiety increased until evacuation became imperative. Guilt over letting their comrades down was a constant feature. As a rule these men did not consider themselves sick, and on reaching the rear they were eager to get to work.

In the rear echelon, however, their personality change manifested itself more clearly than in the forward area, and their loss of efficiency and self-confidence persisted. Men who had been in command of 30 to 160 men became willing to do simple tasks. Thus truck driving was particularly in demand as a reassignment, for these men disliked handling men in any capacity. Yet they remained as well motivated as they were before evacuation. Two case histories are presented to illustrate the type of behavior we have called the "old sergeant syndrome." Case 27 illustrates the loss of adaptation to combat following excessive exposure to battle. The reaction to responsibility is clearly demonstrated.

CASE 27. A 29-year-old technical sergeant with 30 months' service who had been overseas 21 months and had an aggregate of 310 days of combat was admitted during a rest period after the battle of the Gothic Line. He had been thrice wounded in action. He stated that he began to have abnormal battle reactions 60 combat days previously. He said: "Now if I get in a hole I just want to stay. It bothers me more now than it ever did before. This last battle my company was ordered to take a house, and within a few hundred yards of the place a couple of my boys got their feet blown off. We withdrew and I

went to the commanding officer and told him I had a feeling that I was going to get it this time, and that I couldn't take it any more. He gave me a direct order to, and it was either do that or have a bad record, so I went." This soldier had tried on three occasions to have his rank reduced to that of private. "You see," he said, "as a platoon sergeant, you are more often than not a platoon leader, and I couldn't lead the men like I did before. Under shelling I got jittery. A platoon sergeant is a leader. If he isn't out in front it affects the men."

This soldier was born on a ranch in Texas. He stated that his father was epileptic, but that he rarely worried about it and that it had not affected him in any way. His parents were harmoniously married. There were seven children, of which he was next to the oldest. He had a happy family life and had many friends on nearby ranches. No significant neurotic traits or conflicts were elicited in the history. Enuresis, nail biting, temper tantrums, running away from home, nightmares, and somnambulism were all denied. He left home to work on another ranch at the age of 14, after completing the eighth grade, and had been steadily employed as a rancher until induction. He had always been self-reliant and industrious. Single, he had no significant sexual conflicts. His Army career was characterized by steady promotion after his arrival overseas. He stated that he had been held down in the States by a lack of T/O vacancies. A letter from his battalion commander stated: "It is my opinion, through observation, that he has reached the end of endurance as a combat soldier. Therefore, in recognition of a job well done I recommend that this soldier be released from combat duty and be reclassified in another capacity." This battalion commander, incidentally, was noted for his unyielding attitude toward psychiatric casualties.

Case 28 illustrates the role of pride in self and the effect on such a soldier of losing his group.

CASE 28. A 28-year-old staff sergeant had had 48 months' service, of which 25 months had been overseas, with an aggregate of 280 combat days. He had been wounded twice, once in hand-to-hand combat at Cassino. He stated that he became excessively nervous after the break-through from the Anzio beach-head. "When I lost 11 men in one day, that was the beginning," he said. "I lost the medics and had to take care of them myself. I didn't have no aid bag, no bandage; it was a pretty rough job. It makes me feel pretty sad to lose all those guys at once." Asked why he had continued in combat, he said: "I carried on as best I could manage because I thought I could make it. I was always able to take it, but the captain told me to go back and see the battalion medics. I was just nervous and couldn't handle my job. Every time I would get under shellfire I had 40 men to control, and my place wasn't in the rear of the platoon. I just couldn't do it. I asked a month and a half ago and a month ago to turn in my stripes, but they said I'd been a good man and they didn't want to take them away." During his combat career this sergeant had had 5 platoon leaders, 8 company commanders, 5 battalion commanders, and a threefold turnover in squad leaders. He estimated that he had been doing the work of a second lieutenant three-fourths of the time. "Generally, when a lieutenant comes in he gets reclassified or gets wounded quick!" he said. He had twice been offered a commission, but had refused each time. "As an officer you have so much more to go through than an enlisted man," he explained. "I had enough trouble being an acting platoon sergeant." He had noticed an increasing difficulty in making friends: "It seems that I can't get up and talk to new guys like I should."

At the interview he presented no evidence of overt anxiety. He described his combat experiences in an emotionless voice and appeared to be somewhat retarded and depressed. To the inexperienced observer, or even to the experienced observer on casual examination, he would have appeared unaffected by psychiatric disease. On describing the loss of his platoon he became somewhat tense and wept for a short period. Asked for three reasons why he had "stuck it out," he answered: "That's what I'm over here for"; "so many men look up to me all the time"; and "my job is to stay with the men and help them as much as I can." Past history revealed no evidence of neurotic traits or tendencies. His parents were harmoniously married and well adapted to each other. His father was strict but not severe, and the parents always agreed with each other's decisions about the children. He graduated from high school in the middle of his class and was extremely active in all sports. He was single. His sexual life was normal. He was steadily employed as a farmer and worked with his father. The oldest of four children, he put two of his sisters through high school, paying for their tuition and clothes and providing them with spending money. His Army career was marked by promotion to corporal at Salerno and to staff sergeant at Anzio 7 months later. He had not been court-martialed, nor had he committed any disciplinary infractions.

The question these men presented was not "Why did they break?" but "Why did they continue to endure?" They retained a strong desire to continue fighting and if ordered to return to the line they would do so without the excuses and grumbling so common in other patients with war neurosis, even though free-floating anxiety was present in some instances. We concluded that there was a normal "defense in depth" against anxiety and that the normal soldier develops an incapacitating battle reaction when these defenses are broken through or when his natural resources are depleted.

CHARACTERISTICS OF THE "OLD SERGEANTS"

Table 7 gives an analysis of the rank, age, and various factors shown in the histories of 50 soldiers who broke down after prolonged combat. The ability of these men to handle responsibility is demonstrated by the high proportion of noncommissioned officer's ratings (60 percent). It is impossible to give absolute figures, because of voluntary reductions in grade and the refusal of ratings. Furthermore, almost all notes from commanding officers stated that these men had been excellent leaders. This opinion was corroborated in every case by clinical observation. From their assignment status and from clinical observation of the group, it was clear that the old sergeant was, on the whole, a well-adapted, integrated, and efficient soldier before evacuation. Seen in this light, the loss of efficiency and self-confidence among them is even more striking.

TABLE VII

Analysis of 50 patients who broke down after prolonged combat

| Rank | Percent |
|--|---------|
| Officer..... | 6 |
| Noncommissioned officer..... | 60 |
| Private..... | 34 |
| Age | |
| 20-24..... | 50 |
| 25-29..... | 32 |
| 30-35..... | 18 |
| Presence of psychosomatic symptoms | |
| Mild (not requiring hospitalization)..... | 43 |
| Severe (requiring hospitalization)..... | 5 |
| None..... | 52 |
| Presence of familial neuropathy or broken homes..... | 34 |
| Enuresis beyond 7 years of age..... | 15 |
| Asocial behavior (e. g., delinquency, marked seclusiveness or withdrawal)..... | 17 |
| Neurotic childhood behavior (e. g., temper tantrums, running away from home, somnambulism, abnormal fears, seclusiveness, persistent nail biting)..... | 20 |
| School record | |
| Grade school graduate..... | 38 |
| High school graduate..... | 62 |
| Failed one or more grades..... | 12 |
| Satisfactory grades..... | 88 |
| Employment record | |
| Steadily employed..... | 93 |
| Erratic employment..... | 7 |

CRITICAL FACTORS IN BREAKDOWN

Distant ideals. After the first few months of combat those concepts known as "the four freedoms," democracy, and the specific purpose of "keeping the enemy out of the United States" were no longer perceived as goals. It may be stated with certainty that in this group these factors were of small relative importance, either as providing motivation or as constituting a defense against anxiety. Though these men had an intellectual appreciation of the necessity for fighting the war, they almost entirely lacked emotional appreciation. The most common response to the question "What do you think of the four freedoms?" was: "I don't have time to think of them in a barrage." Religion played a definite role, and many men said that if it were not for prayer they would have found it difficult to keep going.

Hatred of the enemy was the next defense to go, although it was a potent positive defense against anxiety. When fear and anger were molded together and directed against the enemy, the basic components

were no longer intolerable to the personality. As a group these soldiers had a much higher degree of directed hatred than the other psychiatric casualties seen in combat. This hatred was based primarily on personal experience with enemy brutality, rather than on previous orientation. According to the men, however, it was not of sufficient force to counteract the effects of long-sustained combat. In some cases it proved destructive, for a few men developed severe guilt reactions as a result of their hostility.

Short-term goals. After sustained periods of battle the soldier was wont to believe that he would soon be relieved. Such rumors as "If we take the next hill we get a rest," or "When we get Rome we will be out of the line," were eagerly believed and constituted a powerful source of will to "sweat it out." Often such short-term goals proved to be boomerangs, for if they were not fulfilled morale deteriorated rapidly. Nevertheless, the individual soldier often deluded himself and continued to endure on the strength of such rumored rewards.

Pride in self is of prime importance in defense against anxiety. All the men studied had high sense of what was expected of them and made sincere efforts to live up to this ideal. They felt that a soldier must be manly and courageous and must exhibit endurance and fortitude. They derived tremendous satisfaction from attaining these goals and were proud of their abilities. With pride as the mainstay of their personalities, they were able for a long time to resist the terrific onslaught of the combat environment. In their early combat careers they proved themselves able to "take it," but once a break in efficiency occurred their self-confidence weakened progressively. Nevertheless, their responsibility was not lessened; often it was increased. When these men were forced to carry the same or a heavier load in the face of death and destruction, a cycle was set up between increased responsibility and reluctance to accept it. This conflict tended to produce a progressive and insidious type of anxiety. One staff sergeant described it thus: "I can't put any definite time on when I felt myself slipping; it is like a flower that grows." In describing the psychoneuroses of World War I, A. F. Hurst²⁶ stated: "Prolonged responsibility was the common cause of breakdown in many men who appeared to be constitutionally absolutely normal and who stood the stress of battle and responsibility without any difficulty at first." In our experience these men did not become panicky, but strove to overcome their disability as best they could. Nevertheless, the role of increased responsibility in producing anxiety is shown by the fact that it was not uncommon to interview a sergeant shortly after he had been offered a commission.

Loyalty to the group in these men was the last and most important line of defense against anxiety. The group with whom the soldier

²⁶ Hurst, Arthur F.: War Neuroses and the Neuroses of Civil Life, Guy's Hosp. Rep., 89: 423-440, 1939 (Reprint).

identified was small. It rarely extended beyond the platoon—the group with which the soldier had shared joint survival. These soldiers had learned through experience the necessity of mutual dependence in battle. In a platoon each man must place a portion of his safety in the hands of his comrades, and at the same time must be responsible for a portion of their safety. Failure of any kind during a fight may produce disastrous results in terms of human life. After an attack these veterans realize the importance they have for one another, and leaving the group is tantamount to desertion. The only honorable way out is by way of a wound or death. Thus group loyalty is reinforced with each battle. The intensity of this loyalty forestalls any behavior endangering the group, such as neurotic battle reactions.

Even this last stronghold, however, weakens with the passage of combat time. Group loyalty is lost chiefly through actual physical depletion of the group. The normal attrition of battle produces this depletion in even the most experienced squad. Those who are left then feel themselves helpless without their former comrades to rely on. Being unable or disinclined to form new attachments, the "old sergeants" find themselves running on their depleted reserves of self-confidence. The rapid change of leadership under combat conditions does not allow for identification to a degree sufficient to bolster their self-confidence. Indeed, they often discover that they must assume additional responsibility for the platoon, since the new officer has usually had no combat experience. Under these conditions emotional tension increases, and shortly after some personal loss is sustained an acute episode occurs. It may take the form of a general emotional breakdown, with uncontrollable weeping and rage reactions. The first acute episode soon passes and the soldier continues in his job, but he is no longer able to withstand the environmental threat and the anxiety it produces. With this last defense broken through, failure of adaptation soon becomes complete, and it is then a matter of military necessity that the man be removed from combat.

DISPOSITION AND THERAPY

The progressive breakdown of the adaptive mechanisms of the normal soldier to the point at which his natural resources are exhausted in the struggle against his environment has been traced. His major defense, identification with the squad or platoon, is gradually destroyed with the depletion of the group, and he is forced to rely on energies and self-confidence already sapped by prolonged combat without rest. Therapy was found to be surprisingly simple, but admin-

istratively difficult. The most effective single therapeutic tool was assigning these men within the army area, out of shellfire but close enough for them to feel that they were actually helping the men "up front." The usual psychotherapeutic procedures were necessary and valuable, but since the "old sergeant syndrome" is primarily a situational reaction, altering the environment by means of reassignment is the most important aid to readjustment and cure. At one time we had several of these men on the cadre of the divisional training and rehabilitation center. Their work over a four-month period was beyond reproach.



The Factor of Fatigue in the Neuroses of Combat

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In World War II a terminology appeared in the military services of most nations, and in most of their major divisions, that indicated a relationship between the physical strain of combat and the occurrence of psychiatric casualties in combat troops. Many of these terms, such as "exhaustion," "combat fatigue," and "operational fatigue," not only received official sanction, but also became part of the common language of the soldier. That there is a definite relationship between physical strain and combat neurosis is inescapable, but many misconceptions and controversies have arisen as to the nature of this relationship. A brief discussion of this relationship would therefore appear to be useful.

In North Africa, Sicily, Italy, and southern France it was demonstrated repeatedly by statistical means that when units remain in contact with the enemy during combat, whether moderate or heavy, defensive or offensive, there is a progressively disproportionate increase in the number of psychiatric casualties as compared to the number of wounded. This phenomenon can be demonstrated only in battalion or smaller size units, since larger units are seldom committed as a whole. Graphs of this unit reaction show that this disproportionate increase in psychiatric casualties, expressed in terms of percent of wounded, rises steadily after about 4 days in combat. This increase, results from the increasing physical strain caused by fatigue and the increasing emotional impact of the unfavorable environment on the tiring soldier. Similar graphs of units advancing against little opposition, and, therefore, suffering little emotional stress, showed no increase in psychiatric casualties, even though conditions were such as to produce extreme physical fatigue. Evaluation of these two different situations made it abundantly clear that physical fatigue did not in itself produce psychiatric casualties. It became evident that there must be a combination of the two factors, emotional stress and physical fatigue, to bring about the progressive and disproportionate increase of psychiatric casualties. From these facts and from the discussion that follows it will be evident that physical stress tends

to act by potentiating the impact of severe emotional stress on the soldier's ability to withstand these unfavorable emotional strains.

Any medical officer who examined combat casualties on their admission to forward medical installations was impressed by the appearance of these soldiers. Usually they were unshaven, dirty, and tired. They had obviously undergone a period of severe physical strain. They walked dispiritedly from the ambulance to the receiving tent, with drooping shoulders and bowed heads. Once in the tent they sat on the benches or the ground silent and almost motionless. Their faces were expressionless, their eyes blank and unseeing, and they tended to go to sleep wherever they were. The sick, injured, lightly wounded, and psychiatric cases were usually indistinguishable on the basis of their appearance. Even casual observation made it evident that these men were fatigued to the point of exhaustion. Most important of the factors that produced this marked fatigue was lack of sleep. Under almost all combat conditions the infantryman gets too little sleep. The conditions of his existence—the almost continuous shelling, the strange night noises, flares, sentry and patrol duties, rain, snow, cold, heat, insects, and the ever present threat of the enemy—conspire to make his sleep at best intermittent and scanty. In spite of this lack of sleep he must undergo long periods of severe exertion, more often than not on a diet that is at best deficient in calories. Often the food is there for him, but he either cannot carry enough of it with him or is too frightened to eat the proper amount. Sometimes the type available has become distasteful through its monotony.

On top of all these difficulties, the weather is often unfavorable. He is assailed by rain, snow, dust storms, or tropical heat, and must operate in the desert, swamp, or mountains. The infantryman is frequently faced with the problem of existing and fighting under one or more of these unfavorable factors. In brief, he must undergo intense exertion under conditions of unfavorable weather and terrain, without the saving recuperative factor of sufficient sleep. It is equally evident that his physical state will deteriorate and his fatigue increase as long as he is in combat where he is continuously exposed also to the emotional stress of fear, which, though it varies widely in intensity, is ever present. The history of the majority of combat-precipitated psychiatric disturbances in this theater clearly demonstrated an increasing fear of combat almost directly proportional to the time spent in combat. Over the longer term of repeated periods of combat no definite physical fatigue effect was demonstrated in this theater. The case histories presented elsewhere in this symposium give strong evidence that in any given combat period a soldier is more likely to become a psychiatric

casualty when he is tired. It appears probable that the mechanisms described in the following paragraph operate.

When the average soldier goes into combat he is usually rested, well fed, and able to withstand the normal emotional stresses of combat. As time goes on he becomes increasingly tired and less well nourished, and with this decrease in physical well-being there is a corresponding decrease in his ability to cope with emotional stress. Most of us are familiar with this process in a minor way in civil life in that we find minor annoyances far more irritating when we are tired. With this decreased resistance to emotional stress, the soldier may be subjected to a moderate or severe traumatic experience. His impaired defenses are overwhelmed by this experience, and he becomes a psychiatric casualty. Thus physical fatigue operates by lowering the soldier's ability to withstand emotional stress. It is probable that this phenomenon of the effect of physical fatigue functions in a quantitative rather than a qualitative way. That is, the effect is a transient one and produces no lasting alteration of the personality, and when the effects of fatigue have been counteracted the ability to withstand the emotional stresses of combat returns to its former level. Thus, it has been repeatedly demonstrated that soldiers who had a marked degree of fatigue before becoming psychiatric casualties almost invariably responded rapidly to treatment and returned to effective combat duty. Not all psychiatric patients seen in the army area were fatigued, and yet many of these nonfatigued patients could be treated and returned to combat duty. Physical fatigue might have been an important factor in many cases, but its presence was not indispensable to the success of early therapy.

Another important manifestation of the fatigue effect is that it may increase the apparent severity of the neurotic reaction. Many patients were admitted to the psychiatric services of the forward medical installations with such symptoms as crying, tremor, and emotional lability, which appeared quite severe at the time of admission but often disappeared almost completely with the restoration of a normal physical state. This symptom potentiating effect of physical fatigue must be kept constantly in mind when one treats psychiatric casualties in the forward areas. Failure to do so may result in the unnecessary evacuation of many soldiers. In April 1943 the term "exhaustion" was adopted as the standard means of labeling all types of psychiatric casualties in the forward areas of this theater. This term was chosen because it was etiologically nonspecific and when read by the soldier connoted a temporary condition.

The knowledge that physical fatigue lowers the threshold of resistance to the emotional stresses of combat proved to be one of the

powerful tools in the therapeutic armamentarium of the forward area psychiatrist. The two major factors of such therapy were brief psychotherapy and the alleviation of physical fatigue. Furthermore, incipient neurotic reactions in overfatigued soldiers were prevented from becoming disabling by simple alleviation of physical fatigue in nonmedical regimental rest centers. (*See "Psychiatry at the Division Level," page 45.*)

SUMMARY

Physical fatigue increases the occurrence of psychiatric disabilities by decreasing resistance to the emotional stresses of combat. Physical fatigue does not in itself cause the neuroses of combat. The changes in resistance to the emotional stresses of combat produced by physical fatigue are of a quantitative rather than a qualitative nature and are reversible. An important part of the treatment of psychiatric patients in the forward areas is the alleviation of associated physical fatigue.



Pseudopsychotic and Psychotic States Arising in Combat

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and

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Soldiers evacuated from the battle scene showed many types of emotional disturbances. At the forward treatment centers it was often difficult to determine which of these disturbances would be transient and which would be prolonged. Most patients, even those severely affected, went into a rapid remission after a few days of treatment at a forward psychiatric installation. In one group, however, symptoms persisted despite removal from the battle scene and care and treatment with rest, food, adequate sedation, barbiturate analysis, and psychotherapy. This group had to be evacuated to the rear echelon, usually to a general hospital, for further care. Some of these soldiers suffered from psychoses of the kinds seen in civil practice. Others, who manifested a clear-cut reaction to the battle situation, under proper management underwent rapid remission, and ultimately their symptoms resembled those of the ordinary case of battle neurosis, as described elsewhere in this symposium. The latter group presented so many distinctive features that the two groups are discussed separately, under the headings, respectively, of "true psychotic reactions" and "pseudopsychotic reactions."

PSEUDOPSYCHOTIC REACTIONS

The term "pseudopsychotic," though not commonly used, is useful in denoting that (1) the presenting symptom complex is that of a psychosis; (2) the process is rapidly reversible by proper treatment; and (3) the symptoms remaining are those of a severe psychoneurosis, with anxiety, tension, and fears. These soldiers greatly feared return to combat, whereas those who were genuinely psychotic, some of whom may also have had transitory episodes, were almost uni-

²⁷ Formerly chief of neuropsychiatric service, 12th General Hospital.

²⁸ Formerly chief of neuropsychiatric service, 36th General Hospital.

formly desirous of returning, even after the psychosis disappeared. Further, the pseudopsychotic soldiers commonly broke down under the first heavy stress of battle, while those who were truly psychotic in some cases saw a good deal of combat before they succumbed. Despite the wealth of literature on emotional reactions to battle, this particular group has received little attention. References to such reactions appear in Grinker and Spiegel,¹⁴ in Miller,²⁹ and elsewhere. It would appear that the various authors present the same syndromes under such different names as "acute regressions," "panic reactions," "acute schizophrenia," and "psychosis unclassified." Whatever the term applied, the symptoms first presented by the patient are those of a psychotic reaction, and if the series is large enough all the syndromes described by the various authors will be seen. These patients have one characteristic in common; they are so acutely disturbed that they require closed ward care and quantitatively must be considered psychotic.

There are no "pure" cases. The symptoms overlap from one group to another and the state is dynamic; patients change from one type to another. For the sake of convenience, however, these patients may be classified into six groups, each of which has some dominant characteristics. Representative cases of each type are described, with case histories to clarify and illustrate the several classifications. The factor of overlap of symptoms must be kept in mind. From a psychopathologic point of view these patients belong in the category of the psychoneuroses. Hargreaves believes that much the same mental mechanisms are found in the psychoneuroses as in the psychoses.³⁰ He writes: " _ _ _ as to whether the difference lies in some more serious emotional disturbance with more profound regression or in some deeply seated biologic deviation in the psychotic, we must confess to complete uncertainty _ _ _ . We can only say that we can recognise the difference between these two groups if we cannot explain it."

Despite the violence of early symptoms, these states are essentially benign and yield in some patients to withdrawal from the battle scene or narcoanalysis, usually in forward psychiatric installations. Such patients arrive at the base section hospitals already diagnosed as psychoneurotic. Certain of them, however, who are resistant to these regimens remain psychotic and require evacuation to a general hospital where special treatment is available. It is with these patients

¹⁴ Grinker, R. R. and Spiegel, J. P.: *War Neuroses in North Africa: The Tunisian Campaign*. New York: Josiah Macy, Jr. Foundation, 1943.

²⁹ Miller, Emanuel (ed): *The Neuroses in War*. New York: The Macmillan Company 1943.

³⁰ Hargreaves, G. Ronald: Chap. IV in Miller, *op. cit.*

that we are concerned in this section. It is important to stress that not all patients with severe psychoneurotic states are included, but only those whose behavior was psychotic on admission. We were careful, for example, to evaluate a rather common "auditory hallucination" that appeared at bedtime even in nonpsychotic, young dependent soldiers with severe anxiety states. These soldiers heard the voice of the mother, grandmother, aunt, or whoever had reared them, in reassurance: "You are a good boy. You have done your duty. You can always come back to me at home." This voice would return night after night during the acute state, but only to patients suffering from neuroses, never to those who were psychotic, and the ego remained well in contact with reality despite this manifestation. It was interpreted as a defense against, or an answer to, the hostile superego, which was threatening or punishing the ego for its failure. Since our earlier records were not available, we cannot say exactly how many pseudopsychotic patients we saw, but there were about 100. The following six groups include all the pseudopsychotic reactions seen in the two campaigns. Among them the reactions of schizoid personalities, which begin to shade into the spectrum of the true psychosis, were the most difficult to treat.

ACUTE DELUSIONAL TYPE

Some of these soldiers appeared to be chronically "stuck in the battle" and had difficulty in recovering from their dissociated state. Sedation in forward installations had been of no benefit to these men. Under intravenous pentothal or amytal some had given a coherent account of their experiences, but then had lapsed back into the same state. No rapport at all had been obtained with others, who were merely temporarily quieted by the drugs without being able to tell their stories. These soldiers were actively deluded. Their delusional experiences were vivid and connected with battle sights and sounds. They kept hearing planes or shells, or they saw the enemy or their comrades, the latter often as dead or severely wounded. They were as a rule violently apprehensive and noise sensitive and overreacted strongly to all stimuli. This group responded readily to therapy. Case 29 is illustrative.

CASE 29. A 26-year-old rifleman, with an 11th grade education, had been a construction laborer in civil life. He had had 37 months of service and 1 month of combat. He had been treated for 1 day at a psychiatric clearing company with heavy narcotherapy prior to entering the general hospital. He had shown no response to treatment but had been totally inaccessible, confused, and at times incontinent. He lived in the battle scene and kept yelling for his bazooka. At the general hospital, where all sedation was omitted for 24 hours after admission, he continued to exist in combat. He was totally careless of his personal appearance, displayed marked noise sensitivity, ducked at the sound of

planes or even trivial ward noises, was restless, and tried to waken other patients, in the belief that they were in his squad. Once he indicated that he thought the ward officer was the commanding officer of his unit, and repeatedly attempted to set out on patrols. Attempts to convince him that he was in a hospital and repeated firm reassurance failed to bring him back to reality.

After 24 hours of this behavior he was given one electric shock treatment, after which he came into good contact, became accessible, and conversed readily and coherently. He appeared moderately tense, anxious, and noise sensitive, and for a time suffered from insomnia. He stated that he had been in combat in a defensive position for nearly a month, but lasted only 2 days in the big offensive of May 1944. During these 2 days he became progressively more tense, tremulous, apprehensive, and unable to stand the sight of blood or the wounded. He contemplated suicide and finally "got so I couldn't control myself and didn't know what I was doing." His history revealed that he came from a closely knit family group in which the mother, who was "always nervous" and on whom he was markedly dependent, had died 5 years before. He had two older sisters. He was a nail biter as a child. Like his mother, he was afraid of water and thunder, and during thunderstorms he hid with her in a closet. He was enuretic until 14 years of age, and occasionally again in the past year. He had always been "high-strung" and "nervous." It was discovered that since 18 years of age he had occasionally used marijuana. His father's discovery of this habit and urging him to enter the Army to get away from his companions led to his enlistment in April 1941. He still resorted to the drug occasionally, though he had not used it for 2 months prior to his hospitalization. Tension and anxiety cleared under psychotherapy and a balanced program of activity, and he had apparently reached his usual status at the time he was discharged to limited service duty.

TYPE CHARACTERIZED BY PROLONGED PANIC REACTIONS

There is a certain amount of overlap between this group and the preceding one, in that some soldiers in this group appeared still to experience battle sounds. In general, however, the delusions in this group were of a minor nature and the outstanding feature was violent overactivity, with severe danger of injury to self or others. In some there was apparently a continuation of the panic that arose in combat, in which the soldier might suddenly leave the comparative safety of shelter under fire and run out blindly into gunfire, dashing against trees or other objects. Most of these patients cleared fairly rapidly when brought back out of danger, but others did not and required evacuation to the rear. An occasional patient, despite severe anxiety, tension, tremor, and fear, had kept a tenuous grasp on awareness until he was back out of danger; then a little stimulus had severed his thin hold on reality and a wildly disturbed panic state ensued. Case 30 typifies this group.

CASE 30. A 33-year-old rifleman, single, with a 7th grade education, a truck driver in civil life, had 2 years of service, with 4 months overseas and 2 weeks of combat. He was treated for 2 days at a psychiatric clearing company, where he was overactive, confused, uncooperative, and noise sensitive and showed multiple muscle spasms. He was totally out of contact, even during intravenous

amytal and pentothal. At the general hospital he thrashed about wildly, attempted to run at times, and had severe generalized muscle spasms in reaction to noise. He made no response when attempts were made to talk to him. After two electroshock treatments he regained clear contact with the environment, but for a few days still had mild muscle spasms. He also for a time was noise sensitive and tense and awakened in fright at night. His history revealed that he had never known his parents. He had been adopted as an infant by foster parents who died when he was 12 and 13. He then lived with an older foster sister. As a child he was "nervous and jittery." At 11 he injured his lower back in skating and spent 4 months in a body cast. At 17 he had a "nervous breakdown" and spent 1 month in bed at home. After that he avoided crowds, noise, and excitement, which upset him. He had been in defensive positions in combat for about 12 days and was in a big offensive for 2 days, during which he remembered trembling all over and men falling about him, but he could not give a clear account of his experience and had a total amnesia for the period from then until after the electroshock treatment. His tension and anxiety gradually cleared, and he was returned to his usual meek, passive, quiet personality status. He was ready for reclassification and discharge to noncombat duty 30 days after admission, when sudden orders to empty the hospital necessitated transferring him to another hospital instead.

TYPE CHARACTERIZED BY EPILEPTOID STATES

Occasionally the battle situation releases violent, unpredictable, explosive behavior that resembles an epileptic furor. At times there are repeated convulsive seizures, which are atypical and follow the hysterical pattern, rather than the epileptic. The epileptoid type of reaction was the least common of all. These patients remain in a dissociated state and out of contact with reality between seizures. In one such patient electroshock treatment was successful after prolonged treatment by sedation, wet packs, intravenous amytal explorations, hypnosis, and a brief attempt at Dauerschlaf had failed at several hospitals. Three electroshock treatments were required in the following case.

CASE 31. A 21-year-old infantryman, with 13 months of service, had been in a severe battle in Africa that lasted for several days. His group was forced to engage in hand-to-hand fighting with the Germans. He knew nothing of what had happened until a citation was read to him by his commanding officer. Apparently in the amnesic period he had bayoneted several Germans. On hearing the citation he fainted. Since then he had had dizzy spells and slight disturbances produced unpredictable "moods to kill." He suddenly developed a resistance to authority and expressed a desire to die, but only after accomplishing his impulse to kill. This impulse was directed toward officers. Several hospitals had found him too difficult to handle. After he had beaten up a medical officer on a closed ward in a station hospital, he was transferred to a general hospital, with his chart marked "homicidal." At this hospital he developed the same episodes of tension. They were so dangerously violent, despite psychotherapy and sedation, that electroshock treatment was resorted to. This treatment quieted him so that he was evacuated without difficulty. He could anticipate the attacks and would warn the ward officer to "get out because even

though you've never done nothin' to me, I'd kill you because I'm getting a mood to kill." Once he made an attempt to hang himself. The mechanism of his hostility toward officers was interesting. He had been a passive child, despite a "bull-like" build, and closely attached to his mother. He had been put out of the home by his father at 15, and became resentful of all father figures, i. e., all figures of authority, civil or military. Yet he had no desire to fight or make trouble and had "bummed around the country" peacefully until he entered the Army. In service he was submissive until the bayoneting experience into which he was "forced by his officers." Apparently he was "unconscious" during this period and regained consciousness at the reading of the citation. All the hostility against his father, released as the repressed "need to kill," was now turned on the officers. The growing tension was the aura, the actual outburst the fit. Afterward he knew little of what he had done and was easily managed until the next episode. Between episodes he was quiet and cooperative, but kindness from an officer seemed to disturb him, probably because it aroused so much reactive guilt against his own hostile feelings.

TYPE CHARACTERIZED BY DEPRESSIVE STATES

Reactive depressions were common among soldiers with battle reactions, particularly among commissioned and noncommissioned officers who had developed an idea that they had let their comrades down. Most of these cases were mild, yielded easily to psychotherapy or simple sedation, and could be managed on an open ward. Obviously benign, these cases do not belong in the present category. Sometimes, however, the depressive state was very deep and progressed after the soldier had been removed from the battle scene. These patients became suicidal and their condition resembled an endogenous depression. Their self-incrimination was usually based on some alleged or real act that brought injury or death to a comrade. Sometimes the findings were those of an agitated depression, usually in a compulsive character setting. All patients in this group differed from those having true psychotic reactions in responding readily to brief treatment, showing a typical neurotic make-up, and having a definite precipitating cause for their depression, to which, however, they overreacted. Case 32 is typical of the group.

CASE 32. A 19-year-old infantryman, with 10 months of service, had seen 1 month of combat. He was brought in because he was suicidal. He was distraught and wrung his hands. His only verbalizations were: "Buddy, buddy, talk to me, buddy! Forgive me, buddy!" Tears rolled down his cheeks as he said these words. He was entirely uncommunicative and refused to eat. Under intravenous amytal he revealed that one night while on guard up front he heard a noise and fired in the direction it came from. The next morning he investigated and found the dead body of his best friend where he had shot. He became depressed, and the condition progressed to a point where he required closed ward care in a general hospital. Considerable abreaction was obtained under intravenous amytal, but it was of no therapeutic value. Finally, electroshock treatment was resorted to. After three treatments he became bright and cooperative. He was still sad over the death of his friend, but he could

handle his emotion with progressive ease. He was an immature boy of 19, attached to his family and his "buddies."

ACUTE REGRESSIVE OR CATATONIC TYPE

This group included the largest number of patients. They were quite abstracted from reality, inaccessible, retarded, mute, withdrawn, confused, perplexed, and resistant. They assumed various postures indicative of regression toward the intrauterine position. The majority showed less reaction to noise and stimuli within the immediate environment than other groups. The syndrome simulated the catatonic state, as shown in case 33.

CASE 33. A rifleman with 10 months of service, 2 months overseas, had seen 40 days of combat, all in a holding position until the day of his breakdown, when the unit entered a big offensive. He was brought into the division clearing station in a confused state with repetitive speech and movements. He was sent to a psychiatric clearing company, where he sat or reclined without moving, staring blankly directly ahead. His face was devoid of expression. Occasionally he mumbled inaudibly to himself. Nothing beyond irrelevant and incoherent responses was obtained under intravenous pentothal. After 2 days without improvement he was transferred to a general hospital, where he lay motionless in bed, mute, apathetic, and bewildered, taking no cognizance of his surroundings. On the second day he was given an electroshock treatment with a grand mal convulsion, after which he regained contact with his environment. He still appeared somewhat retarded and depressed. He was tense, apprehensive, and easily agitated, and often expressed marked fear of return to combat. He had had a complete amnesia from the time of a forced withdrawal of his unit under heavy shellfire, in which he saw many killed. As his symptoms gradually lifted, he revealed himself as basically a timid, passive, dependent person. He was the older of two siblings, of whom the younger was a girl. He had always been quiet, shy, and very close to his family, with little interest in the opposite sex. He was kept in the hospital 32 days because of a wounded finger. At the time of his discharge to limited service he was getting along well except for occasional battle dreams.

TYPE CHARACTERIZED BY SCHIZOID REACTIONS

This group was differentiated from the preceding one by the slower development of schizophrenic reactions. In these soldiers the battle reaction developed gradually, but tended to be reversible. Most of these soldiers revealed evidence of a previously schizoid personality. While some showed a simple persistent withdrawal, others developed an organized system of delusions. Overt anxiety identified their disorder with other battle neuroses and separated it from the true schizophrenic reactions. The anxiety of all patients was related to their own experiences in battle. The ego retained its hold on reality despite the schizophrenic façade. This type bridges the gap between the pseudopsychotic and the true psychotic reaction. Case 34 illustrates the reactions of this group.

CASE 34. A 24-year-old lieutenant, with 2 years of service, had been overseas 5 months and had experienced 4 weeks of combat. He became greatly disturbed when 41 men under his command were killed and he was covered with dirt in his slit trench. He was evacuated. At the general hospital he was at first tense, anxious, and depressed, and stuttered badly. Later he expressed ideas of reference, heard voices, and had delusions of electric currents being shot into him and of being poisoned. Although he showed marked improvement after 4 electroshock treatments, he had to be evacuated to the zone of the interior, because of the pressure of new patients. Several weeks later a series of letters from him indicated that he had gone into complete remission. During his stay with us his anxiety regarding the battle scene persisted.

TREATMENT

The aim of therapy in these acute episodes is to bring the patient into contact with reality so that he will become accessible to psychotherapy and readjustment in the Army scheme. The longer the delay in bringing about this contact, the more protracted the illness is likely to be. The danger of chronicity is the bugbear of every psychiatrist. Most of the acutely disturbed states incident to battle are transient and if properly treated clear up when the soldier is removed from the battle scene. Some of the stupors, confusions, panics, and even regressions clear up on treatment with intravenous pentothal or amytal or after 2 or 3 days of moderate narcotherapy. A few of these patients are then ready for return to limited service. The majority, however, must be returned to the United States for further treatment. Any soldier whose behavior is even briefly at a psychotic level is potentially too much of a hazard to his comrades to be returned to combat. The patients with whom we were concerned in the general hospital, did not yield to these measures. Either the personality was too fragmented or the process had become fixed. At any rate, the symptoms did not yield to the therapeutic armamentarium of forward installations, nor were further waiting, psychotherapy, and attempts at release by intravenous amytal, pentothal, or the comparative safety of the general hospital of avail. For the most part the pattern persisted.

If such reactions continued narcotherapy was harmful. Working in different overseas hospitals we each tried Dauerschlaf in a few patients of this type. They were not benefited by this procedure; in fact, the illness often increased in severity. Occasionally a psychotic episode was produced by prolonged use of barbiturates, especially when the patient went through several installations in a long course of evacuation. This episode was either a true toxic psychosis or a drug-released reaction, in which repressed symptoms and tension were released so rapidly that the patient could not handle the flood, and a psychotic state ensued. The usual order of treatment was

psychotherapy followed by manipulative therapy. If psychotherapy failed, intravenous pentothal or amytal was tried if it had not previously been given. Sometimes this procedure was used even when previous attempts had failed. If the patient did not regain contact with reality after the administration of intravenous barbiturates, with exploration and attempted synthesis, electroshock therapy was instituted. This procedure caused reversal to the neurotic level, and the usual psychotherapeutic measures were then adequate to restore the patient to such a condition that he might do well on limited service. In acute types, when there were acute delusions, severe prolonged panic, or acute regression, one to three treatments were needed, usually two. In these types of illness electroshock was needed only to bring the patient back into good contact with reality. In the more chronic illnesses, with depression and schizoid reactions, three to six treatments were needed, the larger number for patients with schizoid reactions.

TRUE PSYCHOTIC REACTIONS

There has been much argument concerning whether battle experience precipitates true psychotic reactions of the types seen in civil life, particularly the most common psychosis, namely, schizophrenia. We cannot answer this question because of the brevity of our records and the absence of collateral data. We can state only that in battle some soldiers develop mental disorders that mirror the psychoses of civilians. Since all psychotic soldiers were directed to certain base section hospitals equipped to treat them, our statistics give a false impression of the proportion of psychiatric battle casualties that were psychotic. Our figure of 12.4 percent in one hospital (107 of a total 865 psychiatric casualties) is unquestionably too high. While we have no actual figures to prove it, it is our impression that the incidence of genuine psychoses was no greater in combat periods than in noncombat periods, and that we have seen more psychotic soldiers in noncombat periods and in base section troops.³¹ Most soldiers with a tendency toward psychosis break down under the stress of military life and training before they reach combat duty.

On the other hand, some soldiers with schizoid, paranoid, or cyclothymic personality traits tolerated much front-line action before they became psychotic. Occasionally the battle scene precipitated a recurrent schizophrenia in a soldier who had recovered from a previous breakdown. Some soldiers were seen who had apparently had an active schizophrenia before entering service, but escaped detection

³¹ Editorial note: Theater statistics indicate that the incidence of psychoses was lower in combat troops than in noncombat troops.

and proceeded to combat duty. One such soldier, who evidently had been psychotic for about 8 years, was sent in only after his paranoid ideas had led him to shoot and kill another soldier. He had seen several weeks of combat. The incidence of psychoses arising under combat conditions varies greatly from the civilian rates in that schizophrenia is relatively much more common, accounting for 71.9 percent of our 107 patients. The paranoid type was by far the most common. In the occasional mixed psychosis in which manic or grandiose features were prominent, there were feats of valor on the field of battle, undertaken usually not as part of group action but as solitary acts that frequently did greater harm than good to the other soldiers.

Pure manic states or depressions were relatively uncommon. Occasionally paranoid states other than schizophrenia and, rarely, psychoses with mental deficiency, constitutional psychopathic state, or epilepsy were seen. Toxic psychoses, especially those associated with alcohol or infections, also occurred infrequently, as did posttraumatic psychotic states. No case of general paresis was seen. The major symptomatology of all these reactions was similar to that of civilian psychoses of the same type. The onset, however, was more often abrupt, and more acute catatonic and paranoid excitements were seen. The reactions were often transitory and thus less malignant than in civil life, perhaps because the process was precipitated by more environmental stress than a civilian ordinarily encounters. Thus even the more stable personalities were temporarily overthrown, and were then capable of more rapid reintegration.

TREATMENT

The kind of treatment given to psychotic patients was often determined as much by the need for beds, the utilization of an available hospital ship or train, or the press of new patients from the front as by the needs of the patients. Ideal individual psychiatry was practically unavailable in the theater of operations, hence the need for rapidly effective therapies. In difficult cases, therefore, electroshock therapy proved a boon. It was safely, easily, and rapidly administered. Many patients could be treated; and, most important, it worked. Often in 24 to 48 hours the inaccessible and mute patient and the acutely disturbed and unmanageable patient were in good contact, especially if treatment was given twice daily at the beginning. After the first 2 days electroshock treatment was given daily; later, every other day. The frequency of treatment varied with the patient and his response to treatment, as well as with the pressure of the situation. Additional treatments were given after remission to insure continued improvement, provided the situation permitted retaining the patient long enough. Just how much treatment could be given in a particular

case depended at times on the need for beds. The patient was treated if his condition could be cleared up rapidly or if he was difficult to manage. If, however, he was quiet and easily managed, or appeared to need protracted care, as in the few cases of chronic schizophrenia, he was sent to the zone of the interior. Owing to the pressure of work and the paucity of closed ward beds, this was the policy regularly followed.

When the severe battle reactions of the Tunisian campaign proved to be particularly difficult to manage, electroshock therapy was introduced as a last resort when all other methods of treatment had failed. It was recognized that shock therapy was not without dangers, that it was a short-cut technique with popular appeal and might, therefore, be used too generally; yet there was the danger of chronicity of symptoms that might make the reversal of the illness difficult if treatment were deferred. There was also the problem of bringing the patient to a state in which he could be shipped home easily. Later in the war there were sufficient facilities for treating severe cases on the hospital ships. Earlier, however, transfer of these patients to the United States on transports or freighters depended on the willingness of the shipmaster to accept them, and acutely disturbed patients were often rejected. In using electroshock therapy over a period of 22 months, in which thousands of treatments were given, only one fracture was detected. This was a mild compression of a thoracic vertebra in a schizophrenic patient. There were no other accidents, an outcome in which good fortune no doubt played a part, but one in keeping with the safety records established for electroshock therapy in the United States.

Though the pressure of the military situation often allowed holding a patient for only a brief time, an attempt at "total push" in therapy was made and found valuable. Various forms of supervised activity, including occupational therapy, entertainment, and games, opportunity for self-expression along various artistic lines, outdoor and indoor athletics, and assisting in caring for and improving the ward were all part of this program. It was one of the chief duties of the nurses and ward attendants to encourage the patients in these activities and to join with them. It was found best to omit sedation and restraint and to substitute packs for quieting the patients. Dauerschlaf was found disappointing as a therapeutic measure. It was used only for extremely disturbed patients who were destroying themselves by overactivity, and then only when an electric shock unit was not available. Even so, after 12 to 15 days at a deep level of sleep, such patients soon manifested all their former disturbance. Individual psychotherapeutic treatment was given as far as time permitted, though necessarily at a superficial level. Even so, it undoubtedly benefited certain patients.

SUMMARY

Acute psychotic reactions occur incident to battle. Most of these reactions are transient and rapidly reversible, but some persist. While quantitatively psychotic, nosologically they belong among the psychoneuroses. The term "pseudopsychotic reactions" is used to describe them. Anxiety related to the battle scene, present even after the psychotic symptoms are gone, distinguishes these reactions from the true psychoses. These reactions yield readily to special therapies, such as electroshock treatment, available in general hospitals. This treatment causes resolution to a psychoneurosis, most often an anxiety state, which is then treated. Most of the soldiers suffering from pseudopsychotic reactions could be returned to limited service and adjusted satisfactorily. Genuine psychoses, while infrequent, did appear in battle. The psychosis was usually schizophrenia with paranoid features predominating. The genuine psychoses that occurred were also often more transitory than those occurring in civil life, or even than the reactions arising under noncombat conditions. Electroshock therapy was also found valuable in the true psychoses, especially in treating depressions or acute schizophrenias, or quieting disturbed patients so that they could be evacuated.



Gastrointestinal Disorders of Psychogenic Origin: Management in Forward Areas

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Much has been written on the meaning of the term "psychosomatic," which in general connotes that every neurosis has a somatic manifestation and every disease a psychic component. In this section "psychosomatic disability" means an illness in which physical symptoms are predominant clinically and the patient complains primarily of physical rather than mental discomfort, but the cause of the illness is emotional conflict, not organic disease. Gastrointestinal disorders constituted the largest single group of psychosomatic disabilities among American soldiers in World War II. It is impossible to determine the exact proportion of gastrointestinal psychosomatic disorders because many ill-defined conditions, particularly orthopedic ones, have a psychogenic component that has not been analyzed statistically. In World War I cardiorespiratory manifestations of neurosis were more common than gastrointestinal symptoms, and much more common than they were in World War II. The reasons for this disparity are not entirely clear, though it is probable that the factor of suggestibility in the neurotic, which may make a particular syndrome assume the proportions of an epidemic, is an important one. Fashions in neurotic symptomatology change with the times, and the stomach was a favored center during World War II.

It is important that psychosomatic disorders be diagnosed correctly as early as possible. Labeling such patients with an organic diagnosis, such as gastritis, hepatitis, or peptic ulcer, in the case of gastrointestinal disorders, and treating them as having such a disease, tend to fix and magnify the symptoms. Loss of effective manpower ensues when these patients are evacuated to base section hospitals for an elaborate investigation to rule out organic disease. Their symptoms increase as long as there is a secondary gain from diagnostic hospitalization. Psychosomatic illness is a neurotic illness and should be treated as such. Since these patients are usually thought to have an organic disease, the general medical officer rather than the psychia-

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trist sees them first. He should, therefore, understand the psychodynamics involved in such illnesses. He should possess the experience and clinical judgment to differentiate the organic illness from the psychogenic and should be able to make a reasonably accurate diagnosis quickly with a minimum of laboratory facilities. It is important that this differentiation be made in the army area in order to salvage a significant percent of these men for combat.

PSYCHODYNAMICS

In psychosomatic illness physiologic changes are set up in an organ by autonomic nerve impulses, generated as a result of emotional conflict or tension. Thus a patient may have cardiac palpitation or tachycardia, urinary frequency, diarrhea, vomiting, or gastric distress, as well as numerous other symptoms caused by disturbed function of an organ with autonomic innervation. Wolf and Wolff³³ have demonstrated psychogenic changes in the gastric mucosa of a man with a large gastric fistula whom they studied with great care over a long period. In various states of emotional tension, such as fear and hostility, they noted reddening and engorgement of the mucous membrane, which often reproduced the picture of gastritis as seen by gastroscopy. When emotional tension was relieved the mucosa resumed its normal appearance. A psychogenic gastric disorder—psychogenic dyspepsia as it is called in this paper—does not properly fall into the category of true conversion hysteria. Initially a psychogenic gastric disorder is one that accompanies anxiety, rather than acts as a substitute for it. The stomach symptoms themselves seem best explained primarily by the processes noted by Wolf and Wolff.³³ They are the visceral manifestations of conflict, as anxiety is the mental expression. Once the gastric symptoms have become a prominent part of the clinical picture, however, they may acquire some of the characteristics of a true conversion. The symptoms themselves may come to offer the patient a partial solution of his conflict and thus give some protection against anxiety. Hence the degree of overt anxiety noted by the physician, or of which the patient is conscious, varies greatly.

In most instances the soldier with psychogenic gastrointestinal illness can continue to perform combat duty, provided early diagnosis is accomplished and the true nature of the symptoms is explained to him. It should be kept constantly in mind that psychogenic symptomatology may represent a "flight into illness" and that the longer the patient is treated as possibly having a physical illness, the less willing

³³ Wolf, S. G. and Wolff, H. G.: *Human Gastric Function; An Experimental Study of a Man and His Stomach*. New York: Oxford Medical Publications, 1943.

he will be to tolerate his symptoms and remain on duty in spite of them. Particularly is this true of the patient evacuated to a base section hospital.

Why is this so? *First*, the soldier has been removed from the rigors of front-line existence and allowed to relax into the comforts of hospital life, where he faces no responsibility. Quite naturally he does not wish to return to his former existence. *Second*, he has been removed from his unit, to which he has ties of loyalty. To the American soldier, this unit identification is the strongest motivation for fighting and enduring hardship and danger. The longer he is away from his unit the weaker this motivation becomes. *Third*, the sense of guilt because of failure, usually possessed by the soldier with a pure anxiety state, does not exist to the same degree in the soldier whose anxiety is overshadowed by physical symptoms, especially when his disorder is treated as a physical illness. He feels justified in leaving his job because he believes himself to be physically ill. The symptoms provide an automatic solution to the two basic conflicts of self-preservation and self-respect. With monotonous uniformity these soldiers say: "I want to go back and do my part, but my stomach won't let me." If the medical officer focuses his attention on the stomach and treats the symptoms, without recognizing or dealing with the neurosis that causes the symptoms, the patient cannot be blamed for believing that his stomach will not let him go back. Psychogenic stomach symptoms in soldiers do not disappear as a result of medicinal treatment or rest. The "flight into illness" should be arrested as quickly as possible. Not only is the halting of this escape mechanism of therapeutic value for the neurosis, but also is it of practical military value in saving manpower. A correct diagnosis and evaluation of duty potential, with prompt discharge from medical channels, either to full duty or limited service, can be accomplished in most cases after a few days of observation in the army area.

This early evaluation is of distinct advantage in checking the intensification of symptoms that occur from too much hospitalization. It can be achieved if the army area has administrative facilities for speedy reclassification of soldiers unfit for combat. A man with a neurotic reaction will become sicker if he remains too long a patient in a hospital, instead of returning to duty. If the neurosis precludes combat, the soldier may still contribute much in a limited service assignment. Mira³⁴ pointed out the psychotherapeutic value of this principle in the Spanish Civil War. The preservation of effective manpower, not exhaustive medical investigation, is the primary mis-

³⁴ Mira, Emilio: "Psychiatry in the Spanish Republican Army," in *Psychiatry in War*. New York: W. W. Norton & Company, 1943.

sion of the Medical Corps. The essential problem in psychosomatic disorders is to differentiate organic from psychogenic illness.

DIFFERENTIAL DIAGNOSIS OF PSYCHOGENIC AND ORGANIC GASTROINTESTINAL DISORDERS

The diagnosis of psychogenic disease is arrived at by the absence of evidence of organic disease, and the presence of evidence of psychoneurosis. These criteria have equal weight. A patient with a neurosis may likewise have organic disease, just as a patient may have two organic diseases, but in both instances the combination is unlikely statistically. In the differential diagnosis of gastrointestinal disorders equal emphasis should be given to the possibility of an organic and a psychogenic explanation, and each should be ruled out or in by appropriate examination. In military medicine, however, it is neither feasible nor advisable to examine patients as thoroughly as one might in civil practice. To do so would entail the evacuation of every soldier with an obscure gastrointestinal complaint to a base section hospital, with disastrous results, both military and medical. The responsibility for ruling out organic disease should be taken by a medical officer at the most forward echelon possible. Clinical judgment is more valuable than laboratory or x-ray facilities. With these considerations in mind it is possible to diagnose and effect disposition in the army area of 90 percent of the soldiers hospitalized for gastrointestinal complaints. Such disposition was effected in the case of 776 patients under my supervision in a 6-month period at an army installation designated as a gastrointestinal center. Certain guides may be useful in differentiating organic disease from psychogenic disorders, namely, the history, the response to treatment, and statistical information.

The *history* is the most important part of the examination of a patient with a chronic gastrointestinal complaint. It is of far greater value than laboratory examination or even x-ray studies, though the latter are necessary in a certain number of cases. Too often the history is limited to the presenting episode, when a complete past history would make the diagnosis clear. The history should be inclusive and accurate with respect to symptoms, and it should relate the past history of poor digestion to the circumstances surrounding its onset and exacerbations. It should always include a personal history giving a brief survey of the patient's life, family relationships, education, marital relationships, and work record, as a means of evaluating the patient's personality. Of great significance is the military history—length of service, length of time overseas, and amount of combat duty. The relationship of symptoms to each of these episodes may provide

important clues. If the patient has adjusted well in the Army he is somewhat less likely to have a neurotic illness. Gastrointestinal symptoms that began before Army service and have continued without real remission are more likely to be psychogenic than organic. On the other hand, symptoms of brief duration should make one more alert for organic disease. Symptoms of vague and varied nature, not characteristic of any organic disease, are usually psychogenic. A thorough physical examination is important, not only because it may occasionally reveal signs that point to a diagnosis, but also because if the disorder is diagnosed as psychogenic the examination is of therapeutic value in convincing the patient that the physician is right. Thus the authority of the physician is enhanced if he has made a thorough examination. With some experience the medical officer without formal psychiatric training can learn to diagnose psychogenic disease accurately. He will require psychiatric consultation in diagnosing doubtful cases and also in determining whether a neurosis is severe enough to warrant reclassification to limited service.

Response to treatment. The symptoms of patients with a psychogenic gastrointestinal disorder ordinarily do not respond to medicinal or dietary treatment or to rest, while those of patients with organic disease usually do. The symptoms of peptic ulcer nearly always abate in a few days if the patient is given frequent feedings and alkalis. In hepatitis without jaundice the gastrointestinal distress and malaise often diminish after rest in bed. The symptoms of a psychogenic gastric disorder simulating these two diseases are usually not materially influenced by such measures. The diarrhea of bacillary dysentery usually subsides promptly with sulfonamide therapy, whereas diarrhea of psychogenic etiology is not affected. A psychogenic backache usually responds slowly or not at all to such measures as rest and heat, whereas an acute backstrain does respond. The information provided by response to treatment is thus a valuable guide in differentiating psychogenic and organic disease, of whatever type.

Statistical information. Table VIII shows the results of a thorough investigation of 140 patients with chronic complaints referable to the upper gastrointestinal tract at a general hospital in Italy between 1 July and 18 November 1944. These patients, who arrived at the hospital within a few days after leaving their combat unit on the Italian front, were somewhat selected in that they had been observed for a short period in evacuation hospitals. As table VIII shows, in only 20 percent was organic disease demonstrated. At another general hospital in Italy in the same period 24 percent of patients with chronic gastrointestinal complaints were found to have organic disease. In unselected patients seen at forward echelons the pro-

portion of patients with organic disease was much lower. For example, of 220 patients with chronic epigastric distress only 7 (3.3 percent) had peptic ulcer. Of the remainder, about 70 percent had psychogenic dyspepsia and 25 percent had ill-defined conditions; that is, no definite disease could be found.

TABLE VIII

Diagnoses of 140 patients with chronic upper gastrointestinal disorders

| Diagnosis | Number | Percent |
|---|--------|---------|
| Organic disease found..... | 28 | 20 |
| Peptic ulcer..... | 10 | |
| Gallbladder disease..... | 3 | |
| Other organic gastrointestinal disease..... | 15 | |
| No organic disease found..... | 112 | 80 |
| (Anxiety state with gastric manifestations, psychogenic dyspepsia, or ill-defined con- dition). | | |
| Total..... | 140 | 100 |

In civil practice at least 50 percent of chronic gastrointestinal disorders are attributable to disturbed function rather than organic pathology. Organic disease is more common in the general population than in the Army age group, in which malignancy and gall bladder disease are rare. The gastrointestinal tract notoriously reflects emotional upset, which is common in the Army. Thus on the basis of probability alone a chronic gastrointestinal disorder in a soldier is more likely to be psychogenic than organic.

Because of the low incidence of organic disease and the high incidence of neurosis among soldiers who complain of chronic gastric discomfort, it is safe to adopt the following criteria in the diagnostic evaluation of such patients in the army area: if the symptomatology does not fit in with any organic disease, the physical examination is negative, and the clinical findings concerning temperature, urine, stool, and blood are all normal, symptomatology should be disregarded and a psychiatric appraisal should be made. The answer will usually be found in this sphere. An exhaustive search for an organic explanation of symptoms by prolonged medical and laboratory investigation will be harmful to the 70 percent of patients who have psychogenic dyspepsia, and many men will be lost to the services. In dealing with the chronic stomach complaints of soldiers, the occasional diagnostic error that may be made is not likely to be serious.

CLINICAL TYPES OF GASTROINTESTINAL DISEASE

Psychoneurosis, peptic ulcer, hepatitis, diarrhea, and parasitic disease, the commonest causes of gastrointestinal complaints among soldiers, accounted for at least 95 percent of cases. The role of chronic gastritis was uncertain. Gall bladder disease was seldom encountered. A brief discussion of the clinical features of each of these manifestations follows.

PSYCHONEUROSIS (PSYCHOGENIC DYSPESIA)

The varied clinical picture of psychogenic dyspepsia, seen in soldiers in a forward area depends on the amount of combat proceeding at the time. During active combat free anxiety is a prominent feature in the majority of patients, who are nervous and tense and experience battle dreams. This state is rarely as severe as that seen in soldiers evacuated from battle to the army psychiatric center with an acute anxiety state. Such soldiers seldom have gastrointestinal symptoms of severe degree. During a quiescent period, when troops are in a defensive position, such as occurred in the early winter of 1945 on the Italian front, the patients seen at the Fifth Army Gastrointestinal Center rarely had overt anxiety and showed little difference from the clinical findings observed in service troops in the base section.

The majority of patients had experienced symptoms for several years. Thus, 72 percent of a group of 100 consecutive patients studied by me had had symptoms before entering the Army. During a period of more active combat, however, there were greater numbers with symptoms of briefer duration. Characteristically, there was little or no remission during which the patient felt entirely well, regardless of what he ate. Often the symptoms had never been severe until the soldier entered the Army, and with each entry into a less stable or more dangerous environment there had been an exacerbation. Frequently soldiers had been hospitalized at these times. The soldier admitted little improvement during such hospitalization. He often said: "They didn't tell me what was wrong," or "They said it was a nervous stomach, but I am sure it was those C rations."³⁵ Not much significance could be attached to a soldier's statement that he had had "ulcers of the stomach" at one time in civil life, since in many cases it was a diagnosis based on a physician's statement, or the patient's interpretation of such a statement, without roentgenographic evidence.

The symptoms of psychogenic dyspepsia are varied. Among these soldiers the patient usually complained of epigastric distress, a burn-

³⁵ Field ration C consists of 6 cans per ration of previously cooked or prepared food, packed in hermetically sealed cans, which may be eaten either hot or cold as follows: 3 cans containing a meat and vegetable component; 3 cans containing crackers, sugar, and soluble coffee (from AR 30-2210, 15 March 1940.)

ing feeling, or heartburn while eating or immediately afterward, rarely after an interval. Usually the soldier had a good appetite, but felt full after eating a few mouthfuls. Baking soda occasionally relieved the distress, but food rarely did. Vomiting was common, but on close questioning it was usually found to consist of regurgitation of a few mouthfuls. Occasionally the patient vomited regularly after breakfast. Altered bowel habits were uncommon, although in patients with much free anxiety there was sometimes slight diarrhea, lasting a few days at a time. Nearly always such patients looked well and were not malnourished or dehydrated. Not infrequently they complained of gastric distress associated with exertion. Diaphragmatic hernia was considered in such instances, but was not found. Frequently these patients had other symptoms, such as dizziness or lightheadedness, insomnia, inability to relax, pains in the chest, palpitation, and headache. As in most psychoneuroses, they complained of feeling tired, particularly in the morning.

In about three-fourths of the patients a family history of indigestion was elicited. In these patients the mother or father had chronic dyspepsia. The patients frequently had had lifelong food idiosyncrasies and were likely to be fussy about their food. Although they were convinced that diet was of paramount importance in the etiology of their symptoms and that their difficulties were caused by C rations alone, they rarely felt much better when given a bland diet in the hospital. What they wanted, consciously or unconsciously, was relief from unpleasant duty. Although if a decision had been made to send them home or reclassify them, they usually complained much less, relief from duty did not bring about a cure. The mechanism is much deeper and more complicated than mere reaction to unpleasant situations.

The personality pattern of patients with psychogenic dyspepsia is strikingly different from that of peptic ulcer patients. They are outwardly submissive and unaggressive, but one senses underneath a pronounced degree of hostility and resentment. Usually it is difficult to achieve rapport with these patients. They show abnormal concern over the stomach, magnify their symptoms, and obviously desire to impress the medical officer with the gravity of their distress. They rarely "feel well," are usually tired, and have other similar complaints. A characteristic feature is their resistance to accepting the explanation that their symptoms are psychogenic. Often they say, "Yes, I know I am nervous, but my stomach makes me that way." In view of the psychodynamics of the illness it is easy to see why patients wish to be considered organically ill, and why it is strongly to their interest to believe they are.

When there was little apparent anxiety these patients were often considered to have an organic disease such as hepatitis, chronic gastri-

tis, or peptic ulcer. Many such patients were evacuated to the base section for further study. Careful evaluation of symptoms, psychiatric examination, and, when necessary, a therapeutic trial on a soft diet with alkalis for a few days, was sufficient to establish the diagnosis with reasonable assurance of its being correct in all but a few patients.

Ordinarily it is unwise to attempt routine gastrointestinal fluoroscopy in the army area. Accurate fluoroscopic examination requires not only the services of an expert roentgenologist, but also more elaborate equipment than is usually available in the army area. Without such personnel and facilities organic lesions may be missed and transient fluoroscopic abnormalities may be considered pathologic lesions. It is usually best, therefore, to decide on a clinical basis whether to return the patient to duty or to evacuate him for further study.

In about 10 percent of the patients reasonably accurate differential diagnosis of psychogenic and organic disease cannot be made without gastrointestinal fluoroscopy. Of 113 consecutive patients with dyspepsia who were x-rayed at the Fifth Army Gastrointestinal Center as part of an intensive clinical and gastroscopic study, only 4 had ulcer, though on the basis of their history all were believed to have ulcer. Six additional patients were believed to have ulcer from a history in which the roentgenograms were negative. In no case, in a group of 190 patients with dyspepsia who were x-rayed, was ulcer demonstrated when the clinical diagnosis was psychoneurosis. Thus it would appear that the possibility of ulcer is slight in a patient in whom the clinical diagnosis is psychogenic dyspepsia. Although from a purely diagnostic point of view roentgenographic study is not often necessary, it has great therapeutic value in convincing the patient that he has no organic disease, and it is, therefore, recommended when adequate roentgenographic facilities are available. It is also helpful to the battalion surgeon to have a negative roentgenographic report if the patient returns to sick call with the same complaint. For those patients in whom insight is not obtainable by explanation alone—that is, between 30 and 70 percent of patients, depending on the circumstances of combat and the degree of free anxiety—roentgenographic examination is recommended. (When free anxiety is present it is more often possible to give the patient insight.) The value of therapeutic roentgenographic examination is not great enough to warrant evacuation when adequate radiologic facilities are not available in the army area.

PEPTIC ULCER

The clinical features of peptic ulcer should be well understood in order to differentiate it from psychogenic dyspepsia. The typical

ulcer symptomatology is present in between 70 and 80 percent of soldiers with ulcers. The symptoms may not always be typical of ulcer—namely, dull, gnawing epigastric pain occurring 2 hours after a meal and relieved by food—but almost invariably there are certain distinctive features. Perhaps the most important is that if symptoms have existed for several years there are remissions lasting a few months, during which the patient can eat what he likes without discomfort. Peptic ulcer is a chronic, recurrent disease. The patient may be awakened at night by pain, an uncommon symptom in psychogenic dyspepsia. Drinking water, eating food, or induced vomiting will usually relieve the pain of peptic ulcer. Vomiting was not a frequent symptom of ulcer among soldiers. The personality of the ulcer patient is usually very different from that of the patient with a psychogenic gastric disorder. He is aggressive, tense, and independent, a good soldier, often a leader, restless and ambitious. Rapport with the ulcer patient is easily obtained. He does not visit sick call at the first sign of distress, as the patient with psychogenic dyspepsia is likely to do. He tells a straight story, and it is easy to obtain a clear-cut history from him. He rarely has other symptoms and does not magnify his distress to the medical officer. Frequently, in spite of gastric distress, he sincerely wishes to return to duty. Table IX outlines factors in the differential diagnosis of peptic ulcer and psychogenic dyspepsia.

TABLE IX

Differential diagnosis of peptic ulcer and psychogenic dyspepsia

| Characteristics | Peptic ulcer | Psychogenic dyspepsia |
|-----------------------------------|---|---|
| Symptomatology | | |
| Pain..... | Dull ache 1 to 3 hours after meals. | Burning sensation immediately after meals. |
| Night pain..... | Common..... | Infrequent. |
| Relief by food or alkali..... | Usual..... | Unusual. |
| Vomiting..... | Uncommon..... | Common. |
| Appetite..... | Good..... | Usually poor. |
| Remissions..... | Present..... | Absent. |
| Relief by hospital treatment..... | Usual..... | Rare. |
| Other somatic symptoms..... | Rare..... | Frequent. |
| Psychiatric features..... | Aggressive, independent, minimizes symptoms, no anxiety, socially successful. | Outwardly submissive, dependent, emphasizes symptoms, anxiety close to surface, maladjusted socially. |

CHRONIC GASTRITIS

Chronic gastritis can be diagnosed with accuracy only by gastroscopy, although in severe cases enlarged gastric rugae as seen roentgenographically are suggestive. The incidence, clinical features, and interpretation of gastroscopic findings are debatable. Although Annis³⁶ and Gold³⁷ each report that in Army hospitals in the United States about 35 percent of patients with nonulcerous dyspepsia had chronic gastritis, the interpretation of such changes is uncertain. Montgomery, Schindler, et al. found that in a naval hospital 11 of 22 patients with chronic nonulcerous dyspepsia had a normal gastric mucosa and 11 had some form of gastritis, of which 5 were classified as mild or insignificant.³⁸ Examinations of the 22 patients by a psychiatrist showed that 11 had a marked neurosis, 6 a mild neurosis, and 5 were normal, but 2 of the normal group were restless and high-strung.

In a careful clinical, radiologic, psychiatric, and gastroscopic study of 109 consecutive patients with chronic nonulcerous dyspepsia, conducted at the Fifth Army Gastrointestinal Center by two internists, one of whom was experienced in gastroscopy, a psychiatrist, a clinical psychologist, and a radiologist, the following findings were obtained: 59 percent of the patients had a normal gastric mucosa; 26 percent showed slight abnormalities, consisting of redness and increased high lights; and 15 percent showed more marked changes, with edema and adherent mucus. These changes are considered by Schindler³⁸ to be the signs of chronic superficial gastritis. In 9 patients spasm of the antrum or midbody was seen without changes in the mucosa. No cases of hypertrophic or atrophic gastritis were found. Psychiatrically, no differences were noted between the group showing gastroscopic changes and the group with a normal gastric mucosa. It was believed that the benign changes noted gastroscopically could best be explained on a circulatory basis related to chronic anxiety. The symptomatology of 67 percent of the patients dated back several years, often to childhood. Since 75 percent of the group had a pronounced neurosis it seemed logical to suppose that the changes were the result of neurosis, not of an inflammatory disease independent of neurosis as some investigators believe. This hypothesis of neurotic change is strengthened by the observations of Wolf and Wolf,³³ who

³⁶ Annis, J. W.: Gastritis in the Military Service, *Gastroenterology*: 2, 85-92, 1944.

³⁷ Gold, R. L.: Gastroscopic Findings with Dyspepsia at an Army Hospital: *Gastroenterology*, 1: 254-257, 1943.

³⁸ Montgomery, H., Schindler, R., Underdahl, L. O., Butt, H. R., and Walters, W.: Peptic Ulcer Gastritis and Psychoneurosis Among Navy Personnel Suffering from Dyspepsia, *J. A. M. A.*, 125: 890-894, 1944.

demonstrated transitory changes indistinguishable from gastritis in the gastric mucosa of their subject with a gastric fistula when he was in a state of emotional tension.

If a patient with positive evidence of psychoneurosis has chronic dyspepsia it is important not to make a diagnosis of gastritis in the absence of undoubted gastroscopic evidence of hypertrophic or atrophic gastritis. Such a diagnosis will more readily fix the symptoms and make it more difficult to salvage the soldier. We know that a neurosis may cause epigastric distress, but as yet we have no exact knowledge or complete agreement among gastroscopists about the significance of gastroscopic changes.

HEPATITIS

Hepatitis is common among troops. It exists both with and without jaundice. The incidence of hepatitis without jaundice is a matter of dispute, though undoubtedly it is an entity. It may be acute, recurrent, or chronic. Without jaundice, hepatitis may be difficult to diagnose, and psychoneurosis should be considered in the differential diagnosis. Liver function tests are usually, though not always, helpful in establishing the diagnosis. The history is the most important method of examination. Symptoms of brief duration in a patient without evidence of psychoneurosis are in favor of acute hepatitis. The usual symptoms are anorexia, appearing suddenly, malaise, and upper abdominal distress, frequently with dull pain in the right upper quadrant, especially on bending over or jarring. There is usually fever of variable degree, sometimes accompanied by chills. The liver is usually enlarged and tender. Evaluation of tenderness of the right upper abdominal quadrant and of the size of the liver is difficult in borderline cases, particularly as many patients with psychogenic dyspepsia have tenderness of the right upper abdominal quadrant. Diarrhea was a precursor of hepatitis in the majority of patients seen in the Italian theater. Diarrhea is not usually a feature of psychogenic dyspepsia, although psychogenic diarrhea is a real entity.

Laboratory tests of value are the leukocyte count, the bromsulfalein test, the icterus index test, and tests for bile in the urine. The leukocyte count is between 3,000 and 5,000, with an increased number of immature lymphocytes. While bromsulfalein clearance is the most reliable test for measuring liver damage, it is usually not available in forward areas.

When hepatitis is suspected the patient must be carefully observed, often for 10 days to 2 weeks, before the diagnosis is reasonably certain. It is, however, seldom difficult to decide whether the patient's symptoms are the result of neurosis or organic disease. The labora-

tory tests mentioned should be repeated at intervals. Daily examinations should be made of the liver, and the urine should be tested daily for bile. In acute hepatitis without jaundice, bile may appear transiently. The patient's personality should be evaluated for neurotic factors. If jaundice is to develop it will do so within 14 days in most patients. The diagnosis of chronic hepatitis may be made on the basis of a previous history of jaundice, an enlarged and tender liver, and fatigue, anorexia, and indigestion after exercise. Here again psychoneurosis needs to be considered. All factors, including liver function tests, should be evaluated before a decision is made.

DIARRHEA

Diarrhea is the most common gastrointestinal symptom among troops, and there was much chronic or recurrent diarrhea among soldiers in the Italian theater. In soldiers the possibility of psychogenic diarrhea must be considered. Of 303 patients with diarrhea seen at the Fifth Army Gastrointestinal Center, 39 were diagnosed as of psychogenic origin. These 39 patients all had a pronounced psychoneurosis and a long history of intermittent mild diarrhea. Repeated cultures, proctoscopic examination, and examinations for amebas were all negative. In a group of 110 patients with chronic diarrhea of undetermined cause, evidence of significant neurosis was lacking. Anxiety was present in many patients, probably because the diarrhea occurred in the drive on the Gothic Line. Bacillary dysentery was also prevalent at the time. It was concluded that while psychogenic factors often played a part in prolonging or intensifying an infectious diarrhea, they were not the primary etiologic factors in most cases of persistent diarrhea.

In differentiating infectious from psychogenic diarrhea the criteria outlined above—namely, the history and response to treatment—are applicable. Infectious diarrhea, which is nearly always bacillary dysentery, usually begins suddenly and as a rule, is accompanied by fever. Although blood may be present in the stools, since the patient often cannot observe his stools when using latrines in the field, a negative statement about bloody stools is not significant. Nausea, vomiting, and abdominal cramps are characteristic. In psychogenic diarrhea the same symptoms may be present, except for fever and the appearance of blood. The most important feature in psychogenic diarrhea is a previous history of repeated attacks of diarrhea during dangerous or traumatic episodes. A further requirement for this diagnosis is a neurotic or unstable personality. Normal persons may have diarrhea during great nervous stress, but usually it does not persist more than a day or two. Bacillary dysentery or amebiasis may be the cause of chronic diarrhea in a psychoneurotic patient. Only by

proctoscopic study, repeated microscopic examinations, and cultures can organic disease be ruled out.

PARASITIC DISEASE

Ankylostomiasis, ascariasis, amebiasis without dysentery, and other intestinal parasitic diseases may cause indefinite gastrointestinal symptoms and must be considered in diagnosis. The stool should be examined for parasites in every case of chronic or indefinite gastrointestinal symptoms.

GALL BLADDER DISEASE

Gall bladder disease is uncommon in the age group that includes most soldiers and need not be entertained seriously as a diagnosis unless the clinical findings are fairly characteristic, in which case the patient should be evacuated to a general hospital for further examination.

TREATMENT AND DISPOSITION OF PATIENTS WITH PSYCHOGENIC GASTROINTESTINAL DISORDERS

Treatment and disposition are discussed together, since early disposition in itself constitutes the single most important factor in therapy. Ideally, patients with psychogenic disorders should not be hospitalized at all. The unit medical officer should make his diagnosis and disposition from ordinary examination. Occasionally ulcer or other organic disease may be missed by this procedure, but experience has shown that catastrophes rarely result from such an error. A certain number of patients, however, must be evacuated from forward units when there is insufficient time for examination in combat and when there is justifiable doubt as to the diagnosis. Moreover, a brief but thorough clinical examination in a forward hospital has therapeutic value for the patient without free anxiety or insight.

In civil practice treatment of psychogenic gastrointestinal disorders by rest, special diets, antispasmodic drugs, and sedatives usually brings temporary symptomatic relief. In the Army, particularly in a combat zone, the secondary gain from illness is so great that such measures rarely provide relief. It is so much to the interest of the psychosomatic patient to remain ill that symptomatic relief cannot be expected from medication. Psychotherapy, by manipulation of the environment, persuasion, suggestion, or explanation, is the only means whereby a cure may be effected. In military medicine these measures are effective only in a limited way. In one sense it is therapy to limit the neurotic's possibilities for escape by limiting his possibilities for perpetuation of symptoms. In many instances, through firm and prompt management, with discharge from the hospital as soon

as the diagnosis is made, the patient improves and performs useful combat service when returned to duty. When his neurosis is not catered to, he is forced to face reality. Unit morale plays a major role in helping him to live with his symptoms. It has been postulated that prolonged functional changes from emotional conflict may lead to such structural changes as chronic gastritis or peptic ulcer. As yet this possibility has not been proved, and it is not on sufficiently firm ground to warrant taking it into consideration in deciding on the disposition of a patient.

When a psychogenic gastrointestinal disorder has been diagnosed, it must be decided whether the patient is to be returned to full duty, reclassified for limited service, or sent to the zone of the interior. The decision is almost entirely a psychiatric problem. Except in patients with intractable vomiting, dehydration, or severe diarrhea, the physical symptoms of themselves are of minor importance as compared to the severity of the neurosis. The number of previous hospitalizations must be taken into account. If the soldier has been recently hospitalized twice in addition to his current hospitalization, it is usually a waste of time to return him to full duty. It is seldom necessary, however, to send a soldier to the zone of the interior, although in the early part of the North African campaign it was often necessary to do so because of prolonged hospitalization. Of 141 patients discharged with psychogenic gastric disorders from a general hospital in Morocco between March and October 1943, 16 percent were returned to full duty, 22 percent were reclassified for limited service, and 62 percent were returned to the zone of the interior. Of the 38 percent discharged to duty or limited service, nearly half were rehospitalized and then sent to the zone of the interior.

This unfavorable result was probably caused by several factors: (1) many of the patients were service troops from base section areas whose neuroses were presumably severe, for they were hospitalized as a result of relatively little environmental provocation; (2) at that phase of the North African campaign the attitude and policy of medical officers were more lenient than they were later; (3) too much attention was paid to symptoms, and it was not then fully appreciated that over-hospitalization and too much medical investigation had a bad effect on soldiers with psychosomatic disorders; and (4) the patients from combat units had been in hospitals for several weeks in the chain of evacuation, with resultant fixation of symptoms. After this same hospital had moved to Rome, 112 patients, nearly all infantrymen, with psychogenic gastric disorders were discharged between July and November 1944. Of these, 55 percent were returned to full duty and 45 percent were discharged to limited service. This marked improve-

ment resulted from the fact that patients reached the hospital only a few days after leaving their units, instead of several weeks later, as in Morocco.

A still greater number were returned to duty when patients were examined in the army area. In a six-month period 79 percent of 286 patients were able to return to full duty. These patients were received the day they left their units in an army installation serving as a gastrointestinal center. The average duration of hospitalization, from the day they were evacuated to the date of discharge to duty, was 7.8 days. Those reclassified for limited service spent two or three more days in a convalescent hospital where board proceedings for reclassification were conducted. It may be objected that the lower percent returned to full duty from a general hospital in Rome was the result of more efficient disposition at forward areas, with only the more severe cases being evacuated. I was in charge of patients at both levels and could detect no difference in the severity of the neurosis or in the clinical findings, except that in Rome the symptoms were more fixed and the patients were much less willing to return to duty. Furthermore, since it is known that many of these patients were evacuated because bed space was required for battle casualties, the lower percent of patients returned to duty is attributed mainly to their prolonged hospitalization.

The effectiveness of soldiers with psychogenic gastrointestinal disorders has been studied, with the results shown in tables X and XI. An investigation of 61 patients returned to full duty from a convalescent hospital in the period of heavy combat was first made by means of a questionnaire (table X). The study indicated that these

TABLE X

Status of 61 soldiers with psychogenic gastrointestinal disorders, 5 to 8 weeks after discharge to full duty from a convalescent hospital¹

| Status | Number | Percent |
|--|-----------------|---------|
| Satisfactory or superior soldiers, or still on duty (no comment as to effectiveness)----- | ² 34 | 56 |
| Ineffective soldiers; rehospitalized or AWOL----- | 16 | 26 |
| Doubtful effectiveness or inadequate report----- | 11 | 18 |
| Total----- | 61 | 100 |

¹ Based on reports from company commanders.

² In this group 2 were wounded in action and 3 were killed or missing in action.

soldiers functioned as well as any patient with a mild neurosis. An additional follow-up study of 95 patients returned to full duty from

the Fifth Army Gastrointestinal Center in a period of defensive action revealed a satisfactory degree of effectiveness; that is, 83 percent remained on duty from 1 to 4½ months after discharge (table XI).

TABLE XI

Status of 95 soldiers from 4 infantry divisions with psychogenic gastrointestinal disorders 1 to 5 months after discharge from Fifth Army Gastrointestinal Center

| Status | Number | Percent |
|---|--------|---------|
| On duty; 5 rehospitalized and returned to duty----- | 79 | 83 |
| Rehospitalized and not returned to duty----- | 14 | 17 |
| AWOL----- | 2 | |
| Total----- | 95 | 100 |

Interviews with the squad leaders of 50 of these men revealed that 34, or 68 percent, were considered average or even superior soldiers (table XII).

TABLE XII

Effectiveness of 50 men returned to duty¹

| Effectiveness | Number | Percent |
|-----------------------------------|--------|---------|
| Average or superior soldiers----- | 34 | 68 |
| Unsatisfactory soldiers----- | 16 | 32 |
| Total----- | 50 | 100 |

¹ As determined by interviews with squad leaders. The majority of squad leaders interviewed stated that these soldiers did not complain unduly of stomach symptoms to other men in the squad or visit sick call frequently, a result indicating the therapeutic value of early limitation of the avenue of escape and the value of unit morale.

After the diagnosis of a psychogenic disorder has been made and it is decided that the soldier is to be returned to duty, he must be told firmly, though sympathetically, that he will have to live with his symptoms; that it is understood he does not feel entirely well and is not goldbricking. It is of great importance that the medical officer treat the soldier as a man with a mild illness that is not disabling. Such treatment may be of great therapeutic value and may also give the patient a certain degree of security. The soldier should be told that few soldiers feel entirely well in combat and it is expected that he, like others, can carry on in spite of discomfort; that he has no serious organic disease and that his distress is caused by nervousness. Patients who deny anxiety, as many do, may be told that, although

they do not feel nervous, their nervousness, centered in the stomach, causes it to behave abnormally. The altered function involved should be explained in such a way that the patient can understand it.

Often the soldier will not accept the explanation given and becomes resentful. Nevertheless, the medical officer should not reverse the decision once it is made. Under no circumstances should he tell the soldier to "go back and try it," for the soldier will then immediately report to sick call, under the assumption that his own serious doubts as to his ability to carry on are shared by the physician. A clear-cut decision must be made by the medical officer and must be firmly communicated to the patient. Reclassification or reassignment should never be mentioned, for these are what the soldier with a psychosomatic disorder seeks. If the medical officer suggests these possibilities by careless talk the soldier will try to be reevacuated through conscious or unconscious intensification of his symptoms. For the same reasons a note suggesting reassignment within the division should never be sent with the soldier for his unit medical officer. Soldiers always read such notes and naturally deduce that they are not fit for combat. A unit medical officer has a right to expect that a patient returned to full duty is fit for it. If he is not fit, reclassification proceedings should be carried out at the hospital.

SUMMARY

In a majority of soldiers chronic gastrointestinal complaints are psychogenic. Hospitalization has an adverse effect on patients with psychogenic disorders. When chronic gastrointestinal disorders are quickly diagnosed and evaluated within the army area there is a marked saving of manpower.



Military Medicolegal Problems in Field Psychiatry

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Most soldiers must control asocial impulses produced by fear in combat. All must endure the normal battle reaction, of which the highly unpleasant psychologic and psychosomatic symptoms would be considered abnormal in almost any civilian situation. The battalion surgeon relieves from duty any soldier whose symptoms he considers incapacitating. Thus a controlled, acceptable medical route of escape is available. The soldier who believes his limit of tolerance has been reached is, therefore, required to present himself to his battalion surgeon for proper medical disposition. He cannot be allowed to make this decision himself. If he could, military and medical discipline would deteriorate, the soldier would lose an important motivation for enduring, and a situation destructive of the morale of those remaining would be created. Most deserters from combat are poorly motivated soldiers with no psychiatric disease who leave at a time of general deterioration of morale. In an infantry division in Italy the frequency distribution of psychiatric diagnoses in a large series of psychiatric consultations prior to court-martial proceedings is shown in table XIII. It is necessary that the psychiatrist maintain rigid criteria for the diagnosis of the battle-induced psychoneuroses and psychoses and exclude from this category all soldiers who have no psychiatric disease and exhibit only the symptoms of the normal battle reaction. The section on "The Normal Battle Reaction" sets up criteria useful in making this distinction.

TABLE XIII

Psychiatric diagnoses in a series of patients referred for psychiatric examination prior to court martial (34th Inf. Div., Italy)¹

| Diagnosis | Percent |
|-----------------------------------|---------|
| No psychiatric disease | 63 |
| Constitutional psychopathic state | 12 |
| Psychoneurosis | 22 |
| Others (psychoses, etc.) | 3 |

¹ Of these patients less than 5 percent were declared not responsible by the psychiatrist.

CASES WITH NO SIGNIFICANT PSYCHIATRIC DISORDER

The following case history illustrates the most common type of case.

CASE 35. A 21-year-old rifleman who had never been in the front lines became frightened and shaky on one occasion when he was shelled for about 5 minutes,

and remained in his foxhole. About 12 hours later, while his organization prepared to move out on an attack but all was quiet in his area, he deserted. He went to Capua, where he stayed with various Italian families. He spoke Italian. When captured he stated that he left his organization because his right knee hurt. It had been injured in an auto accident 12 years before. His previous history was not remarkable from the psychiatric point of view. Physical examination was negative. The knee was normal. Psychiatric examination showed the soldier to be normal. The psychiatric opinion was that this soldier had no psychiatric disease and was responsible for his acts.

CASES WITH PSYCHIATRIC DISORDERS

Desertion and misbehavior in the face of the enemy occurred also in soldiers with battle-precipitated neuropsychiatric illnesses, especially anxiety states. Some of these soldiers would have merited evacuation through medical channels had they presented themselves for consideration prior to the offense. The situation was altered, however, by the commission of the offense. Under these circumstances the psychiatrist was required to state an opinion, not about suitable medical treatment, but concerning the soldier's responsibility for his acts. In some instances, when the soldier had a psychosis, it was obvious that he was not responsible for his acts. Similarly, when the soldier had *no* psychiatric disease it was evident that he *was* responsible for his acts. Difficulties arose in cases that fell between these two categories. In such cases definite criteria for responsibility had to be established that would fulfill the requirements of justice and so promote morale and the will to fight.

Only those soldiers who, at the time of the alleged act, were "insane," according to the legal definition of the word, should be considered not responsible for their acts. Thus the psychotic soldier is not responsible for acts committed while actively psychotic; the epileptic is not responsible for offenses committed during an epileptic episode; and the soldier with a neurotic battle reaction characterized by fugue or a panic state, with confusion, is not responsible for acts committed while in such a state. The diagnosis of fugue or panic reaction with confusion is not difficult if all the facts of the case are at hand and the story can be evaluated for internal and external consistency. In practice, however, few such cases are seen in medicolegal consultations, for most soldiers suffering from these disorders are evacuated medically. Except in these instances, neurotic battle reactions do not prevent a soldier from "recognizing the difference between right and wrong," nor do they render him unable to "adhere to the right" if he is adequately motivated. They may in some instances make it more difficult for him to avoid offenses against the military code. The psychiatrist may, therefore, present a soldier's severe anxiety symptoms to the court for consideration as extenuating

his alleged offense, but not as justifying exoneration. The following case histories and opinions illustrate these points.

CASE 36. A 29-year-old private was referred for neuropsychiatric examination prior to trial for desertion. While his organization was awaiting embarkation in Italy for the Anzio operation, he left without permission. He remained AWOL while the organization embarked and until he was arrested by military police. In the interim he whiled away his time in Naples, eating and sleeping with various military units. In 6 months of active combat he had developed progressively greater tension and anxiety. Some urinary frequency was present during the entire time, and there was mild but persistent pathologic noise sensitivity. Nineteen days before committing the offense for which he was charged, he left his company while it was being shelled. Although he remained away 5 days, no charges were preferred. He was examined 6 weeks after the alleged offense was committed, during which time he had not been exposed to any enemy action. When examined he showed no objective signs of anxiety. The pulse rate was not elevated, and he had no tremor. His past history was not remarkable. He had shown no important neurotic traits prior to entrance into military service. He had never committed any legal offenses in civil life, but he had been AWOL once during his training period in the United States. The psychiatric opinion given was as follows: "This soldier is suffering from psychoneurosis: anxiety state, mild (battle reaction). This is an emotional disorder in which the soldier may find it difficult but not impossible to control his behavior under certain conditions of battle stress. This man's disorder is and was mild and had no important effect on his ability to reach a rational decision or to control his behavior in the incident described. He was and is responsible for his acts. Hence the examiner can make no medical recommendations pertinent to the final disposition of the charges."

CASE 37. A 22 year-old rifleman was referred for neuropsychiatric examination prior to trial for desertion in the vicinity of Cassino. He had served about 7 months in combat. In this period his tension and anxiety became nearly uncontrollable. He said: "I feel like my nervous system is burning up. My heart jumps. I feel like I'm going to faint. I get so scared I can hardly move. Under shellfire he had exhibited a tendency to run about in a panicky manner. Because of his nervousness his commanding officer had sent him to a rest camp in Caserta. When his stay there came to an end and he was scheduled to entruck to return to the front, he walked away and remained in town. He was arrested by military police and returned to the kitchen area of his organization. He did not report to his company and was arrested in Naples by military police 11 days later and returned to the regimental stockade.

There was no enemy activity at the time of commission of the alleged offense. There was no evidence that there had been any confusion, panic, or alteration of consciousness at any period during or after each occasion of desertion. The soldier stated that he left his duties because on repeated occasions he had not obtained what he considered adequate medical care for his complaints (i. e., anxiety symptoms). He was considered sickly in childhood and early adolescence and was enuretic till he was 9 years of age. His father died when he was 7 years of age. There was constant conflict between his mother and stepfather. When examined he appeared tense and anxious. His pulse rate was 116 and he exhibited marked coarse tremor. He complained of persistent mild noise sensitivity and of battle dreams.

The following psychiatric opinion was given: "This soldier is suffering from psychoneurosis: anxiety state, moderately severe (battle reaction). This is an

emotional disorder in which the soldier finds it difficult but not impossible to control his behavior under certain conditions of battle stress. The emotional disorder from which this soldier is suffering did not make it impossible for him to reach a rational decision or to control his behavior in the incidents described. Hence he was responsible for his acts. It was, however, more difficult for him to control his behavior than had this emotional disorder not been present. It is recommended that this factor be considered by the court in extenuation of the alleged offenses."

CASE 38. A 32-year-old infantry lieutenant had been in combat for a month. He had been in charge of a platoon that had suffered heavy losses under heavy shelling in an isolated position with little food or water. He had finally felt it necessary to go back for further instructions. He remembered little more until he woke far behind the lines on the following day. He was later told that he had passed a wire crew whom he had told that there was a severe battle forward, and that he had appeared confused to them. On the following morning he had talked with a superior officer, who later testified that the patient was completely incoherent. He was charged with having left his troops. Shortly before entering the Army he had experienced an episode in which he suddenly left his wife in a car and walked into the ocean. His remembrance of the occurrence was hazy. He eventually wandered back home and slept until the following day. The following psychiatric opinion was given: "This officer is suffering from psychoneurosis: conversion hysteria, with fugue (battle reaction). This is an emotional disorder that resulted in an episode of altered consciousness with automatic behavior, in which the officer did not know what he was doing and had no actual control of his actions. Since the alleged offense occurred in and as a result of this episode of altered consciousness, he was not responsible for the acts alleged. He was, in the legal sense, temporarily insane at the time of the alleged offenses. Hence it is recommended that charges be dropped. This officer should be medically reclassified and placed in a noncombat assignment."

The recognition of the psychoses and the epileptic equivalents and the formulation of proper medicolegal recommendations in such cases involve no special difficulties. Soldiers suffering from such disorders should be reported to the court as not responsible for acts committed while in such states.

MENTAL DEFICIENCY

It is obvious that mental deficiency may impair the ability of the soldier to understand what military law and his duty require of him; or, if he understands it, he may have difficulty in controlling his acts and finding a legally acceptable release from an intolerable degree of anxiety. It is, however, the general military experience that an appreciable percent of mentally dull soldiers (mental age 8 to 9) exhibit acceptable self-control on the battlefield. Hence mental deficiency cannot be considered automatically to render a soldier legally irresponsible for his acts. The psychiatrist must attempt to estimate for the court the degree of difficulty that the subject may experience in adhering to a legally acceptable course under any given circumstances. The psychiatrist should be careful not to overevaluate the results of mental age determinations. Due weight should be given to evidence

of intellectual capacity, such as past performance, which lies outside the realm of formal psychometric tests. It can be stated almost as a rule that no mental defective of a grade sufficiently low to be totally irresponsible for his acts is allowed to pass through combat training and become attached to a division in combat. Case 39 is illustrative of this group.

CASE 39. A 27-year-old rifleman was sent to the psychiatrist for opinion prior to court-martial for misbehavior in the face of the enemy. While his company was engaging the enemy he left it without securing permission and proceeded to the rear. He stated that he did so because he was "jittery, scared, and couldn't keep up." He stated further that he did not at the time realize the serious nature of his offense, although he knew he was disobeying military regulations. During the Tunisian campaign he had worked in a motor pool, but was eventually relieved of his job because his vehicles were found to be in poor repair. He had been engaged in combat as a rifleman for only a short time before committing the alleged offense. At the time of examination he showed neither tension nor anxiety. There was no tremor. It was obvious that he was mentally dull. On the Kent Emergency Scale his mental age was 9 years—a score that, if anything, was high. His grasp of the situation in which he found himself was imperfect. The degree of his mental dullness could be judged by the fact that he did not know how many days there were in a month or how many minutes in an hour. His previous Army performance was consistent with marked intellectual dullness. His school record was poor. He left school in the 8th grade at the age of 18, after failing many grades. His home had been broken by the early death of his father. His childhood behavior pattern was characterized by frequent temper tantrums. In civil life he was employed as a truck driver. The following psychiatric opinion was given: "This soldier is suffering from mental deficiency (mental age, 9 years, Kent scale), with transient anxiety in combat. Despite this diagnosis he is responsible for his acts. Since his mental deficiency is of such grade that it seriously lessened his ability to comprehend the total military demands of his situation, it is strongly recommended that his mental deficiency be considered in extenuation of the alleged offenses. This man should be reassigned to a service element of his present organization or to some other type of noncombat duty, when his legal status has been clarified. He is psychiatrically unfit for further combat.

MALINGERING

While the Articles of War provide adequately for the punishment of malingerers, proof of malingering that will withstand attack by an enterprising defense counsel is difficult. The problem is most satisfactorily resolved by persuading the soldier to drop his symptoms and return to duty. When suitable means of persuasion were used, all malingerers without exception could be returned to duty if there was no serious underlying psychiatric disease. In this way manpower was conserved.

OTHER PROBLEMS

The psychiatric evaluation of other types of offenders, such as alcoholics, psychopaths, and offenders of civilian type, presented no new or unusual problems in the field. After clarification of their legal status

and completion of sentence to confinement, when ordered by the court, constitutional psychopaths were recommended by the psychiatrist for administrative discharge from the service under provisions of Sec. VIII, AR 615-360 (now AR 615-368 and AR 615-369).

ORGANIZATION OF MEDICOLEGAL WORK IN THE FIELD

In disciplinary cases all psychiatric opinions within a division should be rendered by the division psychiatrist, who is fully acquainted with the situation in which the alleged offense was committed and can deal with offenders without the delay that occurs when they must be sent out of the division. Consultations are best rendered on an ambulatory outpatient basis. In the Fifth and Seventh Armies all psychiatric opinions in nondivisional troops were given by staff members of the army psychiatric centers, except in unusual circumstances, and offenders were seen strictly on an outpatient basis. As in the division, this policy saved time in obtaining opinions, maintained continued army control over army personnel, provided more adequate liaison between

SUBJECT: PSYCHIATRIC REPORT IN DISCIPLINARY CASES

TO: COMMANDING OFFICER _____

Name: ASN: Org:

Age: Service:

A. The above mentioned man was referred for psychiatric examination because of:

The _____ officer of his unit states that:

He states that:

Findings on examination _____ :
(Date)

In my opinion he is suffering from (medical diagnosis with brief explanation of this condition in lay terminology) :

FIGURE 9. Form used in submitting psychiatric opinion in disciplinary cases (front).

Recommendation:

When answering in detail the questions in B, C, D, and E below, a clear distinction should be drawn between (1) facts observed by the psychiatrist making the report; (2) statements made by the man himself; and (3) the alleged facts communicated by others.

B. Unfitness to plead at the time of the trial.

1. Is he able to understand the nature of the proceedings at a court-martial? -----
2. Is he able to object to any member of the court? -----
3. Is he able to instruct his defending officer? -----
4. Is he able to understand the details of the evidence? -----
5. Is he able, with advice and assistance of legal counsel, to conduct the defense of his case? -----

C. Criminal Responsibility.

1. Was he at the time of the alleged offense suffering from a defect of reason resulting from disorder of the mind? -----
2. Did such defect of reason prevent him from knowing the nature and quality of the act which he was doing? -----
3. Did such defect of reason prevent him from knowing the consequences of such an act? -----
4. Or, if he did know, was his mental state such that he was unable to refrain from such act? -----

D. Evidence as to Behavior.

1. Was the accused suffering at the time of the offense from any emotional or physical disorder which might have affected his behavior? -----
- If so specify: _____

State how this might affect his behavior: _____

2. Is punishment likely to diminish the chances that he will repeat this or similar offenses? -----
3. Is punishment likely to increase or decrease his efficiency as a soldier? -----

E. Medical Disposition.

1. Is any treatment required immediately, during detention, or after release? -----
2. Is punishment likely to aggravate his mental condition or to precipitate other mental disturbances? -----
3. Is any other action (e. g. transfer after sentence) recommended? -----

F. Any further remarks considered desirable.

Signature

FIGURE 9. Form used in submitting psychiatric opinion in disciplinary cases (back).

the psychiatrist, the offender's organization, and the army judge advocate, and insured uniformity of policy. Offenders were not hospitalized for psychiatric opinion unless special circumstances required extensive diagnostic work-up or locked-ward facilities for observation. In such instances they were hospitalized in the base section area, where guard facilities were adequate. When adequate background information was available a single interview was usually sufficient. A report was prepared and dispatched to the proper authorities immediately. These policies resulted in speedy receipt of reports by legal authorities and avoided congestion in the psychiatric wards, where space was usually at a premium.

TECHNICAL ASPECTS OF EXAMINATION AND REPORT

A written report from the offender's military organization, stating the exact nature of the charges, the circumstances in which the offense was committed, and certain details of the soldier's medical and military history should be given the psychiatrist at the time of the examination. In many cases it is impossible to give a satisfactory opinion without such information, and unless it has been placed at his disposal the psychiatrist as a rule should refuse to render an opinion for use in courts martial. The psychiatrist's opinion was submitted on a standard form devised for that purpose (figure 9). Care was taken to use nontechnical terminology as far as possible, in order that the report should be intelligible and informative to nonmedical authorities who might deal with the case.

PREVENTION

Though the prevention of offenses against military law is a command function, division and army psychiatrists, who are in close touch with problems of morale and motivation, may offer suggestions for reducing the number of such cases. In general, prevention involves: avoidance, as far as militarily possible, of exceeding the physical and moral endurance of the troops, together with proper regard for both positive and negative factors in motivation.



APPENDIXES

APPENDIX I

Statistical Studies

COLONEL FREDERICK R. HANSON
Medical Corps, Army of the United States

and

LIEUTENANT COLONEL STEPHEN W. RANSON
Medical Corps, United States Army

Although the difficulty in obtaining statistics on any medical problem in combat is nearly insurmountable at times, it is possible to obtain reliable data most of the time if a relatively simple uniform system is constantly used. To be of value any system adopted must (1) provide a continuous and current evaluation of the neuropsychiatric casualty rate for each unit down to and including battalions, (2) contain comparable figures on "Sick" and "WIA" (Wounded in Action) for each reporting period, (3) provide a uniform method of collection of data so as to permit a comparison between divisions and, within the division, between regiments and battalions, and (4) provide a continuous and current record of these statistics at the level of division, army, and theater. Higher headquarters must be informed without delay of any unexplained increase in neuropsychiatric casualty rates. In the Mediterranean Theater of Operations a practical system was developed by trial and error. It was used continuously by Fifth and later Seventh Army for a year and a half. The data were collected, compiled, and reported every 2 weeks by the division psychiatrist, on whom rested the sole responsibility for this duty. The casualty figures were obtained from the records of the division clearing station, and the "Operational" reports were usually obtained from the regimental S-1 and S-3. When possible, the explanation for any major fluctuation in rate was obtained from the surgeon of the battalion concerned. The routine collection of data was usually delegated by the division psychiatrist to a responsible enlisted man. The collected data were forwarded through the division surgeon on the 15th and last day of each month, and copies of the report were retained in the office of the division, army, and theater surgeon.

The reporting forms used were mimeographed, and a sample copy is illustrated in figure 10. It will be seen that the daily casualty

figures by battalion form an effective means of discovering any unusual increase in neuropsychiatric casualties. When this increase is disproportionate to the number of wounded, the average ratio being 1 neuropsychiatric casualty to 4 WIA, it is a sure index of trouble in the battalion. This trouble may arise from a variety of sources, the most common of which are: unusually unfavorable environment, prolonged combat without rest, poor leadership, alteration in evacuation policy by the battalion surgeon, or mass breakdown in unit morale.

NEUROPSYCHIATRIC REPORT — Infantry Division

Location: ANZIO

Period: 1-15 March 1944

| th Regiment | | | | | | | | | | | | | | | Regiment strength | Operation | | |
|-------------|---------|------|----|------|--------|------|----|------|--------|------|----|------|-----------|------|----------------------|-----------|--|--|
| Date | 1st Bn. | | | | 2d Bn. | | | | 3d Bn. | | | | 1 Bn. | 2 Bn | | 3 Bn | | |
| | WIA | Sick | NP | % NP | WIA | Sick | NP | % NP | WIA | Sick | NP | % NP | | | | | | |
| 1 | 5 | 2 | 0 | | 0 | 3 | 1 | | 0 | 1 | 0 | | 2980 | P | R | Q | | |
| 2 | 1 | 2 | 1 | | 0 | 4 | 0 | | 0 | 3 | 0 | | 2963 | P | R | Q | | |
| 3 | 4 | 1 | 2 | | 0 | 11 | 0 | | 0 | 1 | 0 | | 2940 | P | R | P | | |
| 4 | 12 | 0 | 3 | | 1 | 2 | 0 | | 3 | 2 | 1 | | 2919 | HS | P | P | | |
| 5 | 7 | 4 | 7 | | 1 | 6 | 0 | | 1 | 5 | 0 | | 2889 | LS | P | P | | |
| 6 | 37 | 3 | 2 | | 9 | 3 | 1 | | 4 | 3 | 0 | | 2837 | AH | AL | LS | | |
| 7 | 49 | 4 | 4 | | 14 | 9 | 2 | | 1 | 4 | 1 | | 2751 | AH | HS | LS | | |
| 8 | 15 | 5 | 11 | | 5 | 10 | 1 | | 2 | 1 | 0 | | 2703 | EAH | LS | LS | | |
| 9 | 9 | 2 | 14 | | 2 | 5 | 3 | | 0 | 0 | 0 | | 2819 | HS | LD | Q | | |
| 10 | 0 | 6 | 8 | | 3 | 2 | 0 | | 2 | 0 | 1 | | 2807 | LS | Q | P | | |
| 11 | 2 | 3 | 2 | | 8 | 8 | 0 | | 1 | 0 | 0 | | 2921 | LS | P | P | | |
| 12 | 27 | 1 | 4 | | 0 | 11 | 0 | | 10 | 4 | 0 | | 2873 | EAH | LS | HS | | |
| 13 | 5 | 8 | 6 | | 1 | 13 | 1 | | 1 | 3 | 2 | | 2841 | LS | Q | Q | | |
| 14 | 0 | 4 | 4 | | 1 | 10 | 1 | | 1 | 0 | 0 | | 2793 | Q | Q | P | | |
| 15 | 1 | 3 | 2 | | 4 | 4 | 0 | | 0 | 3 | 0 | | 2776 | P | P | P | | |
| Total | 174 | 48 | 70 | 40% | 49 | 91 | 9 | 15% | 26 | 29 | 5 | 18% | (AV) 2854 | | | | | |

| th Regiment | | | | | | | | | | | | | | | Regiment strength | Operation | | |
|-------------|---------|------|----|------|--------|------|----|------|--------|------|----|------|-------|-------|----------------------|-----------|--|--|
| Date | 1st Bn. | | | | 2d Bn. | | | | 3d Bn. | | | | 1 Bn. | 2 Bn. | | 3 Bn. | | |
| | WIA | Sick | NP | % NP | WIA | Sick | NP | % NP | WIA | Sick | NP | % NP | | | | | | |
| 1 | 1 | 2 | 1 | | 0 | 4 | 1 | | 7 | 1 | 0 | | 2889 | Q | R | LS | | |
| 2 | 3 | 0 | 0 | | 0 | 3 | 0 | | 2 | 8 | 2 | | 2853 | P | R | Q | | |
| 3 | 2 | 4 | 0 | | 0 | 5 | 0 | | 4 | 2 | 0 | | 2841 | Q | R | P | | |
| 4 | 3 | 0 | 0 | | 0 | 1 | 1 | | 4 | 4 | 0 | | 2824 | LS | R | P | | |
| 5 | 1 | 1 | 0 | | 0 | 7 | 2 | | 1 | 3 | 3 | | 2819 | LS | R | P | | |
| 6 | 2 | 0 | 0 | | 7 | 7 | 0 | | 7 | 7 | 0 | | 2891 | EAL | P | P | | |
| 7 | 5 | 1 | 0 | | 5 | 1 | 0 | | 5 | 1 | 0 | | 2910 | HS | P | LS | | |
| 8 | 6 | 0 | 0 | | 6 | 0 | 0 | | 6 | 0 | 0 | | 2895 | Q | Q | Q | | |
| 9 | 7 | 0 | 0 | | 7 | 0 | 0 | | 7 | 0 | 0 | | | P | P | LS | | |
| 10 | 8 | 0 | 0 | | 8 | 0 | 0 | | 8 | 0 | 0 | | | | | | | |
| 11 | 9 | 0 | 0 | | 9 | 0 | 0 | | 9 | 0 | 0 | | | | | | | |
| 12 | 10 | 0 | 0 | | 10 | 0 | 0 | | 10 | 0 | 0 | | | | | | | |
| 13 | 11 | 0 | 0 | | 11 | 0 | 0 | | 11 | 0 | 0 | | | | | | | |
| 14 | 12 | 0 | 0 | | 12 | 0 | 0 | | 12 | 0 | 0 | | | | | | | |
| 15 | 13 | 0 | 0 | | 13 | 0 | 0 | | 13 | 0 | 0 | | | | | | | |
| Total | 174 | 48 | 70 | 40% | 49 | 91 | 9 | 15% | 26 | 29 | 5 | 18% | | | | | | |

KEY

AH-Attack, heavy opposition
 AL-Attack, light opposition
 EAH-Enemy attack, heavy
 EAL-Enemy attack, light
 P-Patrol activity
 R-Retreat
 FM-Advance, no opposition

FML-Advance, light opposition
 HS-Heavy shelling (enemy)
 LS-Light shelling (enemy)
 Q-quiet
 R-Rest area
 DR-division rest

$$\% \text{ NP} = \frac{\text{NP}}{\text{WIA}} \times 100$$

FIGURE 10. Division neuropsychiatric report form (front).

(Reverse side of report)

| | WIA | Sick | NP | Total | Average strength |
|-----------|-----|------|-----|-------|------------------|
| Infantry | 523 | 301 | 121 | 945 | |
| Artillery | 48 | 27 | 12 | 87 | |
| Engineers | 21 | 27 | 3 | 51 | |
| Medical | 4 | 11 | 0 | 15 | |
| Others | 19 | 38 | 7 | 64 | |
| Total | 615 | 404 | 143 | 1162 | |

$\frac{NP}{WIA} \times 100$ 23%

Number of disciplinary cases seen - 15

S.I.W. 22

A.W.O.L. 47

Comments:

The weather was cold and rain almost continuous. The water table was only 18 inches under the ground surface in most areas and in these the foxholes which were deep enough to afford any protection had several inches of water in them. This was particularly true in the area occupied by the 1st Bn., __Inf. The terrain was flat, under direct observation by the enemy, and movement was impossible except at night.

In the 1st Bn., __Inf. two platoon leaders became N P casualties on 8 March and there were 23 N P casualties from those two platoons in three days. One of these lieutenants was a replacement and had been with the platoon only three days; he had a strong history of previous neuroticism and was clearly unfit for combat leadership. The old leader-selection problem again. This 1st Bn., is being pulled out for a five days rest and has been in the line for 34 consecutive days.

No further comments.

Maj., M.C.

Division Psychiatrist

FIGURE 10. (Continued) Division neuropsychiatric report form (back).

from any cause. Any one of these situations requires immediate investigation by the division psychiatrist and usually also by Command. It must be kept clearly in mind at all times that the psychiatric casualty rate in a unit is directly proportional to the feeling and efficiency of the unit, and that for every neuropsychiatric casualty there are several other borderline or incipient casualties. Constant attention to the comparative neuropsychiatric casualty rate of the various units is the most reliable means available of measuring the existing and potential state of well-being and efficiency of a unit. Through this means, it is possible to control and prevent mass loss of badly needed combat personnel.

The parallel between casualty rates in terms of wounded and psychiatric casualties is clearly demonstrated by figures 11, 12, and 13. These graphs were prepared from the reports of the various division psychiatrists in the Mediterranean Theater of Operations, and they cover the period from the invasion of Italy in September 1943 to the end of December 1944. They include such major actions as Cassino, Anzio, Garigliano, and the Gothic line. In these graphs, the fact

45th INFANTRY DIVISION WIA AND NP CASUALTIES

RATE PER 1,000 PER ANNUM

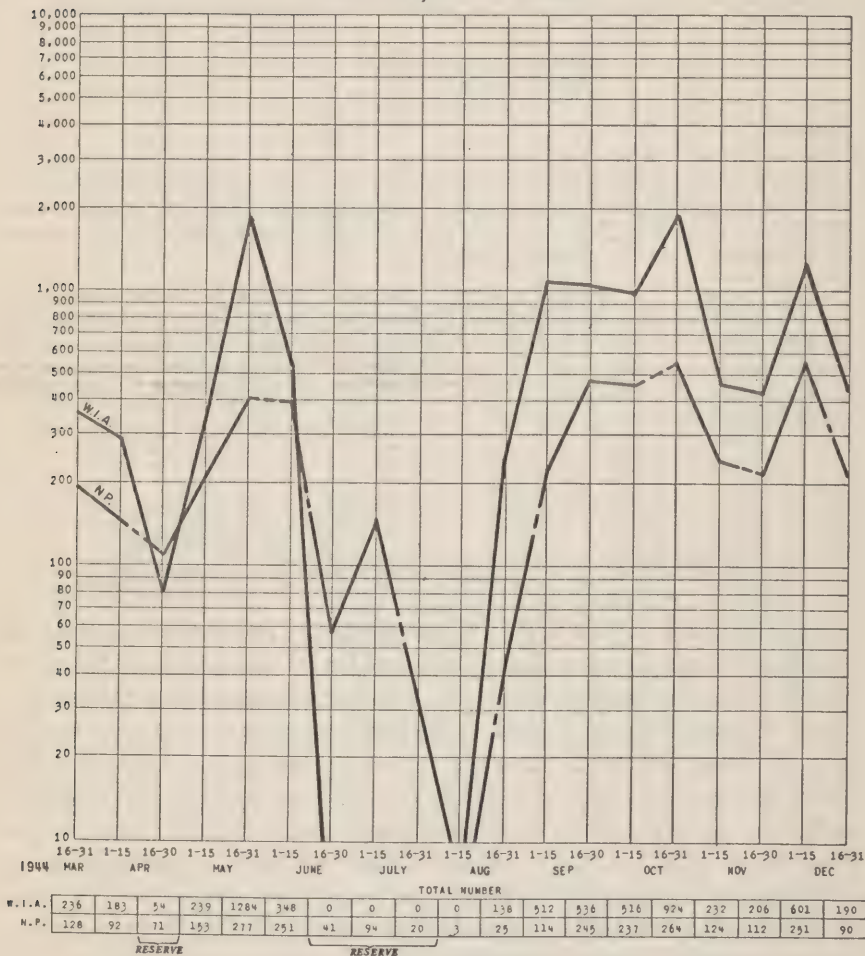


FIGURE 11

88th INFANTRY DIVISION
WIA AND NP CASUALTIES
RATE PER 1000 PER ANNUM

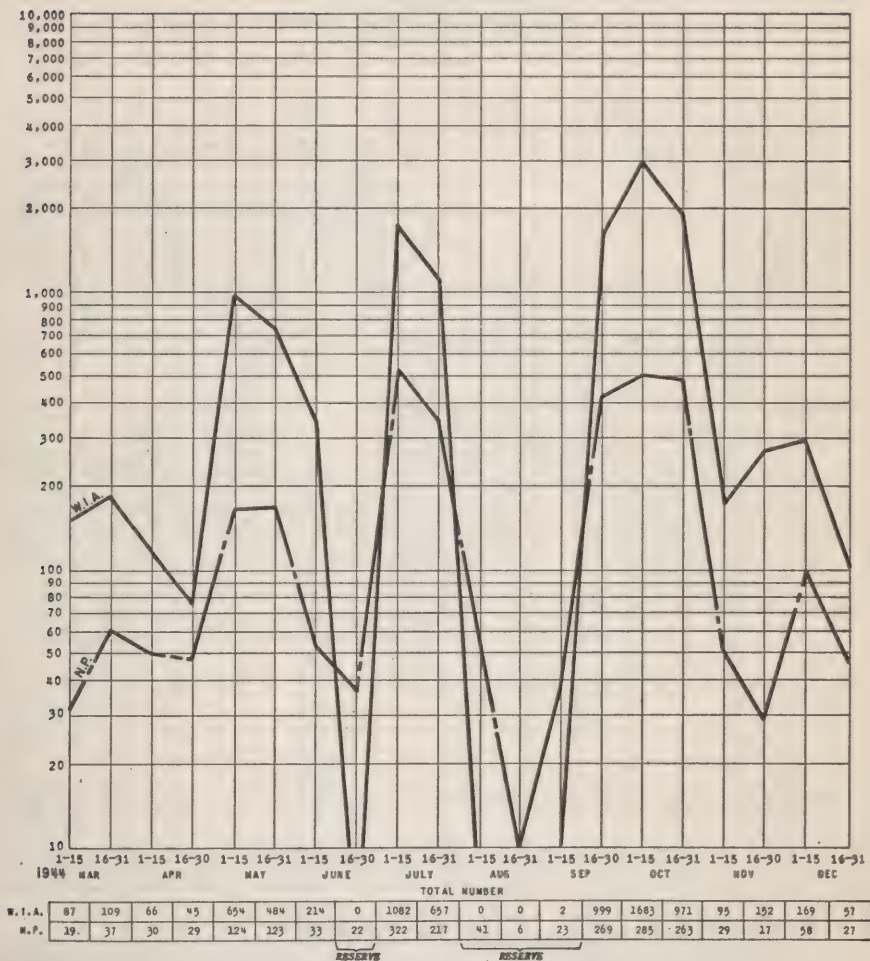
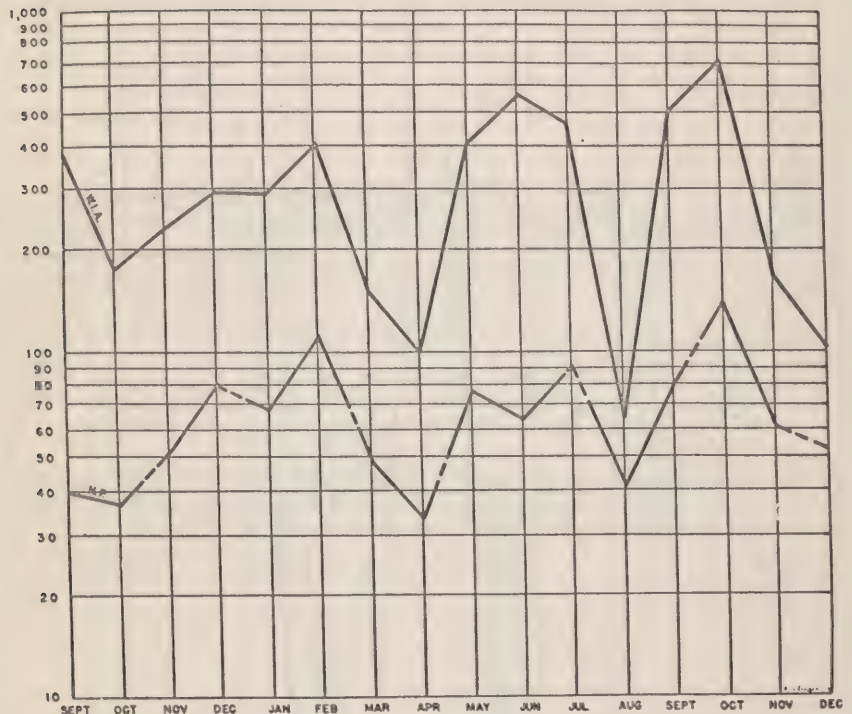


FIGURE 12

WIA and NP CASUALTIES
5th ARMY
RATE PER 1,000 PER ANNUM
SEPT 1943 DEC 1944
MTOUSA



| | | TOTAL NUMBER | | | | | | | | | | | | | |
|-----|----|--------------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-----|-------|-------|
| WIA | NP | 3,551 | 2,849 | 3,897 | 4,950 | 4,994 | 7,448 | 2,999 | 1,997 | 8,124 | 10,946 | 6,323 | 832 | 6,075 | 8,404 |
| | | 380 | 593 | 886 | 1,329 | 1,154 | 2,071 | 943 | 659 | 1,529 | 1,243 | 1,223 | 527 | 971 | 1,632 |

| | | RATE PER 1,000 PER ANNUM | | | | | | | | | | | | | |
|-----|----|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|
| WIA | NP | 374 | 177 | 231 | 298 | 292 | 406 | 156 | 102 | 412 | 568 | 468 | 66 | 514 | 723 |
| | | 40 | 37 | 52 | 80 | 68 | 113 | 49 | 34 | 77 | 64 | 91 | 42 | 82 | 140 |

FIGURE 13

MTOUSA
NEUROPSYCHIATRIC HOSPITAL DISPOSITIONS
RATE PER 1,000 STRENGTH PER ANNUM
(COMBAT ORIGIN)
BASED ON COMBAT STRENGTH

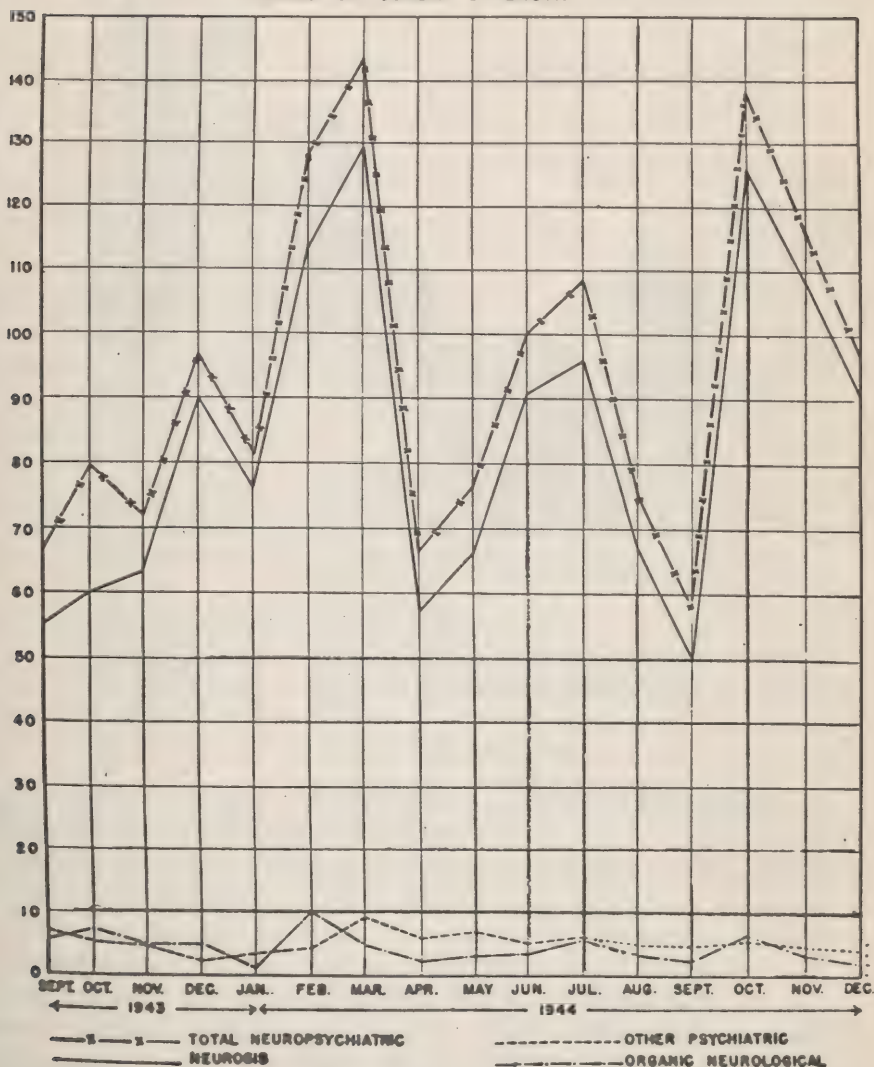


FIGURE 14

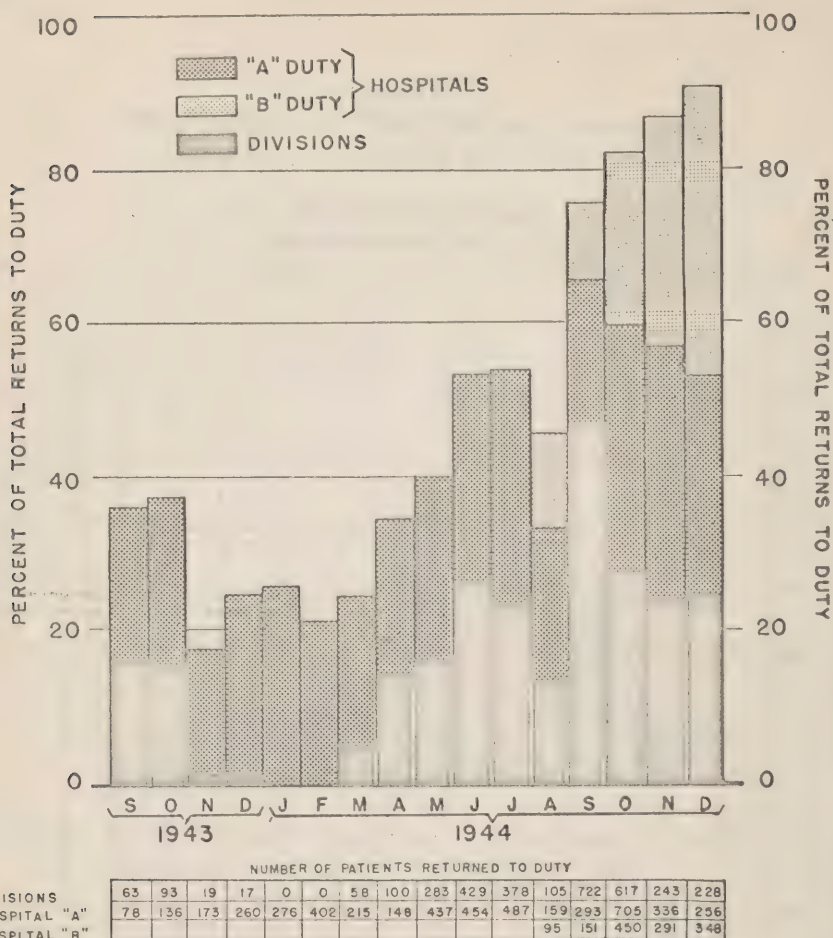


FIGURE 15. Dispositions to duty of neuropsychiatric patients, 5th Army, September 1943–December 1944.

that psychiatric casualties are as inherently combat casualties as are wounds is inescapable. The great majority of psychiatric disorders arising among combat troops may be classified under the heading of "Neurosis." Figure 14 shows that there is a wide fluctuation in the rate of occurrence of neurotic disorders among combat soldiers, whereas psychotic and neurologic disorders occur at a relatively fixed rate which does not appear to be influenced by the intensity of the fighting. Table XIV shows the relative frequency of the various types of psychiatric disorders. In this table it will be seen that anxiety reactions comprise about 85 percent of the total neurotic disorders. Disposition of the various types of neuropsychiatric disorders is given in this same table.

TABLE XIV

Total neuropsychiatric cases discharged from all of the hospitals of Mediterranean Theater, January to June 1944

| Diagnosis | Disposition (Combat) | | | | Av. Days | Disposition (Noncombat) | | | | Total |
|---------------------------|----------------------|--------|--------|---------|----------|-------------------------|--------|--------|----------|---------|
| | Duty | L. S. | Z. I. | Total | | Duty | L. S. | Z. I. | Av. Days | |
| 1. Neurosis: | | | | | | | | | | |
| (a) Anxiety----- | 1, 757 | 4, 155 | 667 | 6, 579 | 11.5 | 679 | 758 | 344 | 16.7 | 1, 781 |
| (b) Anxiety-Hysteria----- | 1, 173 | 787 | 237 | 1, 197 | 18.5 | 147 | 286 | 146 | 21.1 | 1, 579 |
| (c) Hysteria----- | 174 | 195 | 141 | 510 | 15.1 | 179 | 176 | 189 | 20.7 | 544 |
| (d) React. Depress----- | 21 | 45 | 74 | 140 | 19.6 | 51 | 15 | 103 | 21.1 | 169 |
| (e) Posttraumatic----- | 37 | 44 | 16 | 97 | 18.7 | 21 | 4 | 8 | 18.5 | 33 |
| (f) Others----- | 213 | 268 | 254 | 735 | 16.6 | 517 | 480 | 534 | 16.1 | 1, 531 |
| (g) Total----- | 2, 375 | 5, 494 | 1, 389 | 9, 258 | 11.9 | 1, 594 | 1, 719 | 1, 324 | 17.7 | 4, 637 |
| 2. Psychosis: | | | | | | | | | | |
| (a) Schizophrenia----- | 1 | 1 | 265 | 267 | 26.8 | 8 | 0 | 909 | 17.6 | 917 |
| (b) Manic Depress----- | 1 | 0 | 28 | 29 | 31.7 | 5 | 1 | 127 | 20.2 | 133 |
| (c) Others----- | 14 | 0 | 104 | 118 | 21.4 | 56 | 2 | 293 | 20.6 | 351 |
| (d) Total----- | 16 | 1 | 397 | 414 | 25.6 | 69 | 3 | 1, 329 | 18.6 | 1, 401 |
| 3. Psychopaths----- | 69 | 58 | 25 | 152 | 31.4 | 547 | 75 | 62 | 16.0 | 684 |
| 4. Mental Defectives----- | 13 | 13 | 4 | 30 | 17.4 | 64 | 36 | 31 | 13.6 | 131 |
| 5. Other Psychiatric----- | 57 | 4 | 12 | 73 | 10.4 | 380 | 27 | 33 | 12.1 | 440 |
| 6. Concussion----- | 116 | 75 | 64 | 255 | 21.7 | 53 | 4 | 30 | 19.9 | 87 |
| 7. Epilepsy----- | 1 | 1 | 43 | 45 | 20.6 | 16 | 9 | 177 | 21.3 | 202 |
| 8. Other Organic----- | 51 | 21 | 51 | 123 | 23.9 | 164 | 50 | 109 | 20.5 | 323 |
| Total----- | 2, 698 | 5, 667 | 1, 985 | 10, 350 | 13.2 | 2, 887 | 1, 923 | 3, 095 | 17.6 | 7, 905 |
| | | | | | | | | | | 18, 255 |

L. S.—Limited service.

Z. I.—Zone of Interior.

Av. Days—Average number of days in hospital.

In figure 15 the results of treatment of psychiatric disorders within the combat zone are given in terms of disposition. All patients returned to duty from the divisional level were returned to full combat duty. Of the patients returned to duty from psychiatric treatment installations at the army level, some were returned to full combat duty ("A" duty) and some were returned to noncombat duty ("B" duty) with troops in the "combat zone." Clear distinction should be made between the technical term "combat zone" where actual combat occurs and the lay use of the term to include the entire theater of operations. Throughout this volume "combat originated" applies only to those cases which arise within actual range of enemy artillery. Many of the patients evacuated to the "communications zone" for further treatment were returned to duty within the theater but relatively few of them ever returned to duty within the "combat zone." When these disposition figures are studied the question "How effective are these former neuropsychiatric patients?" almost invariably arises. This is a hard question to answer. The answer can have meaning only in terms of performance of assigned duty. Glass made followup studies of 393 neuropsychiatric patients returned to combat in the 85th Infantry Division in the Italian Campaign. Their effectiveness was compared with the effectiveness of those who had been returned to combat after hospitalization for sickness, minor injury, or wounds.

Figure 16 indicates that there was no essential difference in the effectiveness of those previously treated for sickness, minor injury, or neuropsychiatric disorders. It is probable that psychiatric factors played a role in all of these cases. Although comparatively greater effectiveness of the WIA returnees has not been explained, it must be recalled that only 9 percent of all wounded are returned to combat. Figure 17 indicates that there was a marked difference in effectiveness, on return to combat, between the group of soldiers who were good soldiers prior to evacuation for neuropsychiatric disorders and those who were not good soldiers before evacuation. Brief psychotherapy rarely affected the basic personality traits of the soldier treated, and, therefore, it is to be expected that the maladjusted soldier will continue to perform his duties ineffectively when his maladjustment arises from long-standing personality disorders rather than from powerful environmental stresses.

The criteria of what constitutes "effectiveness" on the part of the soldiers studied were established by Glass who said: "Either the soldier performed effective duty after returning to his unit or his performance was judged to be ineffective. In order to be scored as effective it was necessary for the returned soldier to participate in 30 days of offensive combat duty or 60 days of defensive combat duty. This duty had to

be rated by members of his unit as average or above average. The 60 days of defensive combat duty were necessary as an alternate standard to score subjects who were returned to duty in the latter stages of the

| TYPE OF DISABILITY | TOTAL HOSPITALIZED | RETURNED TO DUTY | EFFECTIVE DUTY PERFORMANCE | EFFECTIVE OF RETURNED TO DUTY |
|---|-----------------------|---------------------|----------------------------------|-------------------------------------|
| WOUNDED IN ACTION | 100% 219 | 59.8% 131 | 43.3% 95 | $\frac{95}{131} = 72.2\%$ |
| ACUTE INJURIES INCLUDES ALL LIA & SIW | 100% 65 | 67.6% 44 | 30.7% 20 | $\frac{20}{44} = 45.4\%$ |
| DISEASE ACUTE & CHRONIC | 100% 201 | 76.6% 152 | 43.8% 88 | $\frac{88}{152} = 57.8\%$ |
| N.P. CASUALTIES | 100% 75 | 52% 39 | 25.3% 19 | $\frac{19}{39} = 48.7\%$ |

FIGURE 16. Results of hospitalization for organic disease.
LIA—Lightly injured in action. SIW—Self-inflicted wounds.

campaign, i. e., the Italian Campaign. Failure of the subject to participate in the required period of combat duty because of administrative transfer, disciplinary infractions, or hospitalization for disease and injury was arbitrarily ruled as evidence of ineffective performance.

The inability to complete the required combat duty because of causes arising from battle (killed, missing, or wounded) was regarded as evidence of effective duty performance and scored as such. All subjects who were rated as poor or useless in combat were scored as ineffective, regardless of the length of time they remained with their units." These criteria are stringent, and it is probable that noncasualties, rated under this system, would show an ineffective rate of about 25 percent.

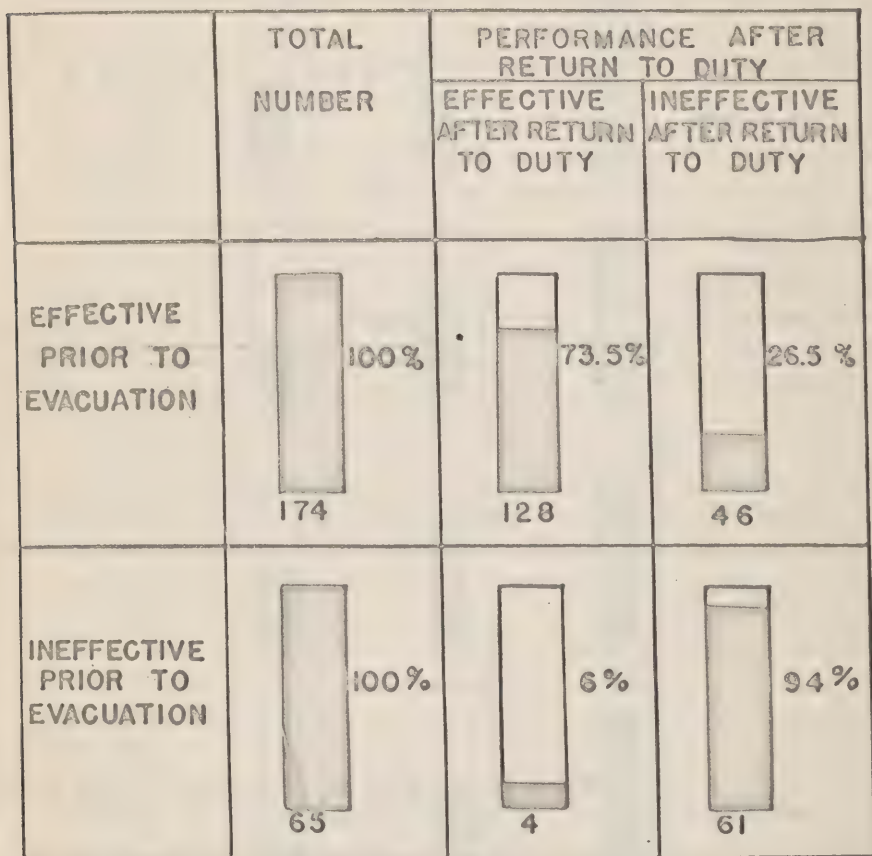


FIGURE 17. Relationship of previous combat performance to posttreatment performance.

Ludwig made a study of the comparative rate of return to combat of neuropsychiatric patients derived from inexperienced divisions in contrast to those originating from experienced divisions. The figures include all psychiatric casualties admitted to Seventh Army medical facilities (both division clearing stations and army centers) between 1 January and 15 May 1945. The statistical material from this investigation is contained in table XV. Ludwig says of these data:

"The factor of total combat experience of the parent divisions exercised a very marked effect upon the percent of psychiatric cases which hospitals were able to return to full combat duty. This operated in the following manner: (1) New and inexperienced divisions were prone to evacuate mild cases, as well as cases not suffering from true psychiatric disorders, i. e., those with normal fear reactions developing early in combat, and the unwilling and poorly motivated soldiers. This derived from the fact that medical officers as well as psychiatrists in such divisions had not yet learned to differentiate correctly between these cases and those with disabling combat neuroses. As divisions developed more combat experience, these deficiencies were remedied, and far fewer mild cases were evacuated from the division. (2) Divisions with long combat records tended to evacuate a high percentage of soldiers with from 6 to 12 months of total combat exposure. Most of these had developed fixed anxiety states, with or without reactive depressions, of varying degrees of severity. It was our impression that such soldiers, even though they might willingly return to combat when told to do so, were rarely of any further value to their units in combat. In consequence, the rate of returns to duty from army psychiatric centers tended to be high in new divisions, and low in old divisions."

TABLE XV

Returns to full combat duty of psychiatric casualties after hospitalization, correlated with total combat exposure of parent division of these casualties. Eleven divisions in Seventh Army, 1 January to 15 May 1945

| Division | Approximate total combat time served by division since beginning of war ¹ | Percent return to full combat duty of psychiatric casualties |
|---------------------|--|--|
| | | <i>Percent</i> |
| 12th Armored..... | Sporadic, four months..... | 77.0 |
| 14th Armored..... | Sporadic, four months..... | 84.0 |
| 42d Infantry..... | Four months..... | 80.0 |
| 63d Infantry..... | Four months..... | 78.0 |
| 44th Infantry..... | Six and one-half months..... | 70.0 |
| 100th Infantry..... | Five and one-half months..... | 78.0 |
| 103d Infantry..... | Five and one-half months..... | 89.0 |
| 79th Infantry..... | Seven months (left 7th Army 1 Feb. 45). | 56.0 |
| 3d Infantry..... | Over one year..... | 35.0 |
| 36th Infantry..... | Over one year..... | 32.0 |
| 45th Infantry..... | Over one year..... | 36.0 |

¹ Combat time here is given as the total combat exposure of the division at the end of the war, subtracting rest and training periods.

It will be noted from this table that the rate of return of psychiatric casualties to full duty after hospitalization tended to decrease progressively as the total combat exposure of the parent division increased.

A study of 358 patients who had been evacuated from the Seventh Army Neuropsychiatric Center to hospitals in the communications zone was made by Ludwig and Ranson. Of these, 33 (9.2 percent) were transferred to the United States as patients, 15 (4.2 percent) were re-hospitalized before they reached a new assignment, and 310 (86.6 percent) were assigned to noncombat duties within the communications zone. A follow-up was made on the 310 patients assigned to duty in order to determine the manner in which they performed their new duties. It was found that only 4.8 percent were given ratings of "unsatisfactory" by their commanding officers, whereas 3.6 percent were rated "superior," 41.6 percent "excellent," 21 percent "very satisfactory," and 26.8 percent "satisfactory." Thus 93 percent of them performed their new jobs in a manner which was satisfactory or better. Performance was not rated for 2.2 percent. This result must be contrasted with that of the earlier part of World War II, when as high as 80 percent of patients with combat precipitated neuroses were evacuated to the United States. This change is believed to be a direct result of the initiation of neuropsychiatric treatment far forward in the combat zone. This treatment organization came into being in an organized way only after nearly a year of active combat. It is quite probable that an increased knowledge about therapeutic methods contributed to the improved results. This group of patients was representative in all ways. Age, rank, combat duration, and types of disorder, were entirely comparable to an average group of patients with psychiatric disorders of combat origin.



APPENDIX II

Method of Handling Neuropsychiatric Casualties in Theaters of Operation (Proposed 1949)

1. The basic principles for treatment of combat psychiatric casualties in a theater of operation are as follows:

a. *Treatment as far forward as possible.* The farther forward such neuropsychiatric patients are treated the greater are the chances for returning them successfully to combat.

b. *Centralization of screening, treatment and evacuation.* In combat there is a powerful tendency toward indiscriminate evacuation, particularly of neuropsychiatric casualties. Manpower is thus needlessly wasted, and the morale of those who remain is adversely affected. Centralization of neuropsychiatric screening, treatment, and evacuation facilities is essential in order to control this tendency.

c. *Avoidance of hospital atmosphere.* Although neuropsychiatric disorders represent genuine sickness and require professional care by specialized medical personnel, the majority of patients do not require typical hospital facilities and actually may be harmed psychologically by a hospital atmosphere.

2. Evacuation of neuropsychiatric casualties will ordinarily be accomplished by the channels shown in figure 1. See page 34.

3. Return to duty of recovered neuropsychiatric patients ordinarily will be accomplished by the channels shown in figure 18.

4. Units specialized for neuropsychiatric patients and general medical organizations ordinarily will be used as follows:

a. At the divisional level:

(1) *Battalion aid stations.* Neuropsychiatric patients will be first evacuated to the battalion aid station. Experience has shown that a large proportion of the neuropsychiatric casualties resulting from combat can be returned to duty from this level. Such patients should be returned to duty either directly or, when conditions permit, after mild sedation and a 24 hour rest in the company or regimental kitchen areas. Patients requiring further treatment will be evacuated. One of the major functions of the division psychiatrist is to supervise the diagnosis, treatment, and evacuation of neuropsychiatric patients by the battalion surgeons.

(2) *Regimental collecting stations* where no treatment will be given neuropsychiatric patients, except for such sedation as may be necessary for further evacuation. In its screening procedure, however, the col-

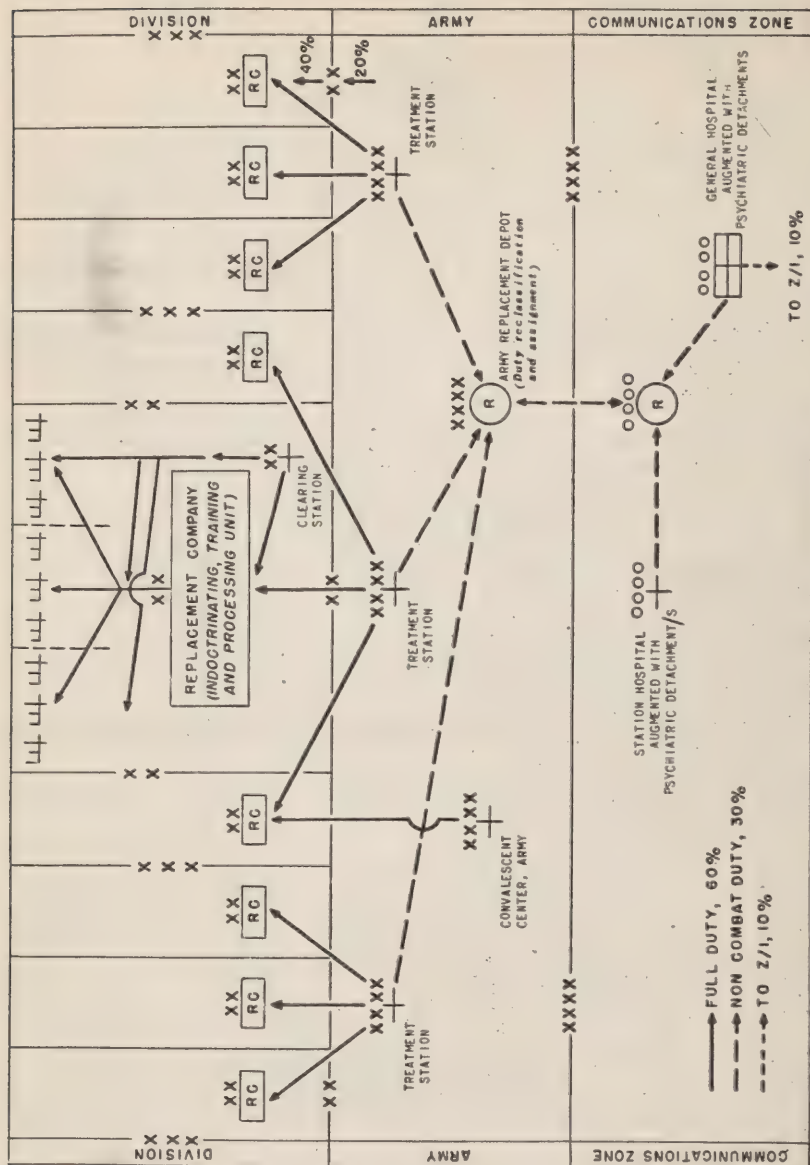


Figure 18. Channels for return to duty of neuropsychiatric cases in a theater of operations.

lecting station performs an important function in picking up patients who have not been officially evacuated by their own battalion surgeons.

(3) *Clearing stations* where all neuropsychiatric patients are sorted and classified as follows:

(a) Those requiring prolonged care and who are to be evacuated to establishments farther to the rear.

(b) Those who are probably returnable to duty within a few days and who will be held at the clearing stations. The number of days

that any casualty will be kept at the clearing station depends on the tactical situation and the necessity of keeping the station free for movement. If conditions permit, short term patients should be held within the division area. Such patients will be returned to their units through the replacement company of the division. This insures further observation and combat indoctrination prior to their return to combat.

During combat, the division psychiatrist will spend the major part of his time at the clearing station, taking an active part in the diagnosis, treatment, and disposition of patients. He will act only in the capacity of a consultant. The responsibility for treating neuropsychiatric patients resides in the personnel of the clearing company, which will be sufficiently well trained to discharge this responsibility under the supervision and the assistance of the division psychiatrist. The clearing company of the infantry division has one psychiatrist, MOS D-3129, who functions as assistant division neuropsychiatrist, and three neuropsychiatric technicians with each of the 3 platoons of the company. Up to 40 percent of the neuropsychiatric patients can usually be returned to full combat duty at this level, either directly or through the replacement company.

(4) *Division replacement company.* Neuropsychiatric patients who can be returned to duty from the clearing station but who require further combat indoctrination or training before rejoining their units in combat will be sent to the replacement company. This company is usually established in the vicinity of the division headquarters and receives all replacements for the division, including those from the clearing station. They are carefully processed and indoctrinated before being sent to combat units. The division psychiatrist will maintain a close liaison with this unit.

(5) The *division psychiatrist* is on the staff of the division surgeon. It is his duty, through the surgeon, to advise the division commander on policies, procedures, and situations which affect the mental health of army personnel. He also acts as a consultant and supervises the treatment and disposition of neuropsychiatric patients at the division clearing station and at the regimental and battalion aid stations.

b. At the army level:

(1) A *neuropsychiatric treatment center* will be placed in operation by the army surgeon when indicated. Such a specialized center may be formed by the use of army clearing companies augmented by a neuropsychiatric team. This unit will operate under army control immediately behind each corps of the field army. Three neuropsychiatric treatment teams will be provided each army, one to serve each corps by augmenting clearing companies to form treatment centers. These three centers represent the chief centers for screening and treatment of

neuropsychiatric patients at the army level. Patients will be received primarily from the division, but also from all other army installations. No neuropsychiatric patient will be evacuated from the army who has not been through one of these centers, unless concomitant surgical or medical conditions make this necessary. Patients will be held normally not to exceed 5 to 8 days, but the length of time that they may be held will always depend on the tactical situation and the necessity for keeping the center free for movement. Those considered salvageable for any duty in the army area should not be evacuated beyond this echelon. More serious cases will be evacuated immediately to the communications zone.

In addition to the 40 percent who may be returned to combat at the level of the division clearing station, at least another 20 percent of all neuropsychiatric casualties can probably be returned to duty from the army neuropsychiatric treatment center. The centers have the important function of providing reserve support for the divisions. When the patient-load in forward echelons makes it impossible to hold neuropsychiatric patients for treatment at the division level, they will be evacuated to the army treatment centers which can absorb these peaks by holding only those patients expected to return to combat. In this way, about 60 percent of the patients can still be returned to combat with a minimum of specialized personnel and equipment, and without risking the adverse effects on morale and operation which indiscriminate evacuation of neuropsychiatric patients always causes.

(2) *Evacuation hospitals.* No recognized neuropsychiatric patients will be sent to an evacuation hospital except when necessary on medical or surgical grounds. The psychiatrist in each evacuation hospital will have the duty of detecting psychiatric patients not previously recognized as such, and preventing leaks in evacuation screening by insuring their transfer to army neuropsychiatric treatment centers. He also will provide necessary consultation for medical and surgical patients.

(3) *Convalescent hospitals.* Neuropsychiatric patients considered salvageable for combat or noncombat duty within the army area, and who require more prolonged treatment than it is feasible to give at the army neuropsychiatric treatment centers, will be sent from such centers to a convalescent hospital. One of the new type army convalescent hospitals will be in support of each corps. It is the chief center for the sorting and treatment of neuropsychiatric casualties on those occasions when special treatment centers have not been established.

(4) *Army consultant in neuropsychiatry.* The army neuropsychiatric consultant serves on the staff of the army surgeon. It is his responsibility, through the surgeon, to advise the army commander

on policies, procedures, and situations that promote or adversely affect the mental health of army personnel. He also supervises treatment, screening, and evacuation of neuropsychiatric patients within the army.

c. Communications zone level:

(1) *Station hospitals* (Specialized neuropsychiatric). All neuropsychiatric patients evacuated from an army who are considered salvageable for duty will be sent to a hospital specializing in neuropsychiatric casualties. This unit will operate close to the army area and constitute the chief hospital for the treatment and screening of combat-incurred psychiatric cases at the communications zone level. Ordinarily, it will not treat patients expected to return to combat, since these will be treated in more forward echelons. Also, it will not treat psychotics and other seriously ill patients who will be treated in a general hospital. This unit will ordinarily require a patient capacity of 500 and a staff augmented by one or two neuropsychiatric teams. Equipment is that of a tent hospital, similar to an evacuation hospital. This is so as to provide the mobility necessary to keep the hospital close to the army area, and to avoid a hospital atmosphere. The patients wear fatigue clothing rather than pajamas and sleep on cots rather than hospital beds. Neither of these objectives can be accomplished nor can the necessary centralization of screening treatment and evacuation be maintained by the conventional use of station and general hospitals or other existing facilities.

(2) *General hospitals*. Psychotics and other seriously ill neuropsychiatric patients evacuated from army areas will be sent to specialized general hospitals if possible. The majority will be evacuated to the zone of interior.

(3) *Station hospitals*. Neuropsychiatric cases arising in the communications zone will be treated in local station hospitals.



APPENDIX III

References

A few of the more important references are listed in order to assist the reader in understanding the complex problems of Combat Psychiatry. Many of these articles were written after this symposium, and they do not constitute a bibliography in the ordinary sense of the word.

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